United States Department of the Interior
Bureau of Land Management

Billings Field Office

June 2001

POMPEYS PILLAR INTERPRETIVE CENTER

Environmental Assessment/Amendment for the Billings Resource Management Plan and Activity Plan

EA Number MT 010-1-38

The Bureau of Land Management is responsible for the stewardship of our public lands. It is committed to manage, protect, and improve these lands in a manner to serve the needs of the American people for all times. Management is based on the principles of multiple use and sustained yield of our nation's resources within a framework of environmental responsibility and scientific technology. These resources include recreation; rangelands; timber; minerals; watershed; fish and wildlife; wilderness; air; and scenic, scientific, and cultural values.

BLM/MT/PL-01/006+2110

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Billings Field Office
P.O. Box 36800
5001 Southgate Drive
Billings, Montana 59107
http://www.mt.blm.gov/bifo/

6240.2

June 4, 2001

Dear Reader:

The enclosed document is an environmental assessment (EA) for the construction of an interpretative center at Pompeys Pillar. The proposed action, which is the preferred alternative (Alternative B), would amend the 1996 Pompeys Pillar EA/Amendment by:

(1) reducing the size of the interpretative center;
(2) providing flexibility in the season of operation, and
(3) removing the existing visitor center and related infrastructure.

A period for substantive comments on this EA will be open until August 2, 2001. Public notification for this EA is simultaneous with notification requirements that the proposed action would result in construction in a floodplain. Comments on the EA/Plan Amendment that are received by August 2, 2001, will be considered prior to issuing the Decision Record. Comment letters on the analysis can be mailed to Sandra Brooks, Field Manager at the Bureau of Land Management, P.O. Box 36800, Billings, MT 59107. A copy of the completed Decision Record will be mailed to those who received the EA/Plan Amendment and will also be available upon request.

As a participant in the planning process, you have the right to file a protest if you believe that your interests may be adversely affected by the proposed action described in this document. The protest may only address decisions that deviate from the 1996 Pompeys Pillar EA/Amendment, and issues protested must have been submitted for the record during the planning process. Protests must be submitted in the form of a letter to the Director of the Bureau of Land Management by August 2, 2001. This will provide sufficient time for a 30-day protest period, which will be initiated from the time of release of this document. The protest letter should include:

1. The name, mailing address, phone number, and interest of the person filing the protest;
2. A statement of the issue or issues being protested;
3. A statement of the part or parts of the plan amendment being protested;
4. A copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party, or an indication of the date the issue or issues were discussed for the record;

5. A concise statement of why the proposed decision is believed to be incorrect. This is a critical part of your protest. Take care to document all relevant facts. As much as possible, reference or cite the planning documents, environmental analysis documents, and available planning records (i.e., meeting minutes or summaries, correspondence, etc.). A protest that merely expresses disagreement with the proposed decision without including any data will not provide us with the benefit of your information and insight. In these situations, the Director's review would be based on existing analysis and existing supporting data.

Protest letters should be addressed to:

Director, Bureau of Land Management
Attention: Ms. Brenda Williams, Protest Coordinator
WO-210/LS-1075
Department of the Interior
Washington, D.C. 20240

Protests will be decided according to standing of the protester and the merits of the protest. To meet the standing requirement, you (the protester) must show that you participated in the planning process; that the supporting record is the basis for determining standing; and that the protest addresses an issue submitted for the record during the planning process. If an issue was not submitted during the planning process, it may be submitted for further consideration in future plan amendments or decisions but will not be included in the document under consideration. The second requirement, which addresses merits of the protest, deals with whether BLM has followed established procedures and considered relevant information in reaching a decision.

After the protest and comment period conclude, appropriate revisions will be made to the EA, the Decision Record will be issued, and all portions of the Plan Amendment that are not being protested will be approved.

Thank you for your interest and participation in the environmental process. If you have any questions, please direct them to Kim Prill, Team Leader at (406) 896-5038.

Sincerely,

Sandra S. Brooks

Sandra S. Brooks
Field Manager

Enclosure
Environmental Assessment

POMPEYS PILLAR INTERPRETIVE CENTER

ENVIRONMENTAL ASSESSMENT/AMENDMENT

for the

BILLINGS RESOURCE MANAGEMENT PLAN

and

ACTIVITY PLAN

BILLINGS FIELD OFFICE
BILLINGS, MONTANA

EA Number: MT 010-1-38

Pompeys Pillar Interpretive Center
Environmental Assessment and Plan Amendment
to the
Billings Resource Management Plan

FINDING OF NO SIGNIFICANT IMPACT

Environmental Assessment No. MT 010-1-38

On the basis of the information contained in this Environmental Assessment and all other information available to me, it is the determination of the Bureau that none of the alternatives considered constitute a major federal action significantly affecting the quality of the human environment. Therefore, an environmental impact statement is not necessary and will not be prepared. In addition, the amendment to the Billings Resource Management Plan does not affect the entire resource area and does not substantially affect other resource programs to the extent that the resource area would initiate an environmental impact statement.

Sandra S. Brooks
Billings Field Manager

Date

EXECUTIVE SUMMARY

This Pompeys Pillar Interpretive Center Environmental Assessment/Amendment and activity plan proposes to implement a management decision contained in the 1996 Pompeys Pillar EA/Amendment, with a focus on constructing an interpretive center at Pompeys Pillar. Since the 1996 plan was completed, BLM considered a proposal to co-locate the interpretive center with a Montana Department of Transportation (MDT) highway rest area. In addition, new information has been identified which points to the need to re-evaluate the size of the center, as well as other decisions. This EA/Amendment generally conforms with many of the decisions that were made in the 1996 decision record. However, new information was incorporated into this analysis and it also considers new proposals/alternatives.

Provided below is a summary of the pertinent decisions made in the 1996 Pompeys Pillar EA/Amendment. The decisions made in the 1996 decision record were not protested.

- Three management zones were established: a Historic Zone, Historic Zone - Developed and a General Management Zone.

  The Historic Zone would be managed primarily to provide visitor access to Clark's signature in a historic setting. The entire area is to be restored to a setting characteristic of 1806. Modifications of the landscape would be the minimum necessary for visitor safety and protection of the signature and other rock art from further deterioration.

  The Historic Zone - Developed would provide an area where most facilities would be placed, including an interpretive center and day-use area. Other facilities may be provided at some point in the future.

  The General Management Zone would be managed to improve and/or maintain wildlife habitat condition, enhance recreation opportunities and utilize agriculture to facilitate general management. This zone would also provide space, if needed, for maintenance facilities.

- A moderately sized interpretive center (about 11,000 to12,500 square feet) would be constructed in the Historic Zone - Developed.

- Pompeys Pillar would be managed as a day-use site. The newly constructed interpretive center would be staffed from May 1 to October 31.

- Visual Resource Management (VRM) classes were designated with specific management objectives.

- The existing access road along the west boundary would be closed and reclaimed and a new, all-weather entrance road constructed.

- The existing visitor center would remain.

The focus of this EA/Amendment is to further refine and adjust decisions related to the interpretive center from the 1996 analysis/decision record. The BLM must decide the following:

1. What size interpretive center should be constructed;

2. Where within the Historic Zone - Developed the interpretive center and related infrastructure should be located. The Historic Zone - Developed was selected as the area in which to generally locate an interpretive center in the1996 decision;

3. Whether the existing visitor center and related facilities should be removed; and

4. What interpretive center operation (season of use) should be provided.

There are two alternatives fully analyzed in this analysis. Other alternatives were considered but eliminated from detailed study. A summary of why these alternatives were dismissed is provided in the analysis.

Alternative A represents no change in current management direction from the 1996 decision and is considered to be the "no action" alternative. A new interpretive center (11,000 to12,500 square feet) would be developed in the Historic Zone - Developed, as well as a highly developed day-use area and trails. The day-use area would be located immediately north of the interpretive center and would be used for multiple purposes. The day-use area would include both islands of shrub as well as open areas for larger functions. A portion of the day-use area would require some clearing (approximately one acre) of underbrush. Large cottonwoods would remain undisturbed, except where there may be overhead hazards.

The interpretive center would be staffed and open to the public from May 1 to October 30. Outside these dates, visitors would be allowed to walk into the site; however, the center would be closed. Existing facilities would remain

and include a small contact station, two vault toilets and other related infrastructure. The existing access road along the west boundary would be closed and reclaimed, and a new entrance road would be constructed.

Alternative B represents the Preferred Alternative. Alternative B was proposed to comply with the general direction of Alternative A, but analyzes a smaller interpretive center in the Historic Zone - Developed. The interpretive center would be approximately 5,700 square feet, with the potential for future expansion. Phase-in components to the center, including a new entrance road, parking area, additional interpretation and potential additions, would be a function of funding and visitation. Development would not exceed the level analyzed in Alternative A. The day-use area would be located further west than the day-use area in Alternative A and would include a portion of the existing day-use area. Although there would still be an open area, it would not require as much underbrush to be cleared. The day-use area would be framed with an irregular vegetation pattern on the border so that it would appear natural.

The interpretive center would be staffed and open to the public from May 1 to October 31. However, there would be flexibility to be open year-round, depending on funding and visitor demand. The existing visitor center would be removed. The existing access road along the west boundary and existing parking area would be closed and reclaimed when a new entrance road is constructed.

Both alternatives are subject to conformance with management common provided in Chapter Two of this analysis. Facility development and activities would be confined/ concentrated to avoid impacts to wildlife. Although some updated information is included regarding Threatened and Endangered Species, the U.S. Fish and Wildlife Service letter of concurrence from the 1996 analysis indicating a "Not Likely to Adversely Affect" is still valid. New information on the spiny softshell turtle (a BLM Sensitive Species and a State Sensitive Species of Special Concern) requires mitigation to avoid impacts to the species. The wetlands/riparian area would be managed for Proper Functioning Condition and the native cottonwood riparian under story within both Historic Zones and wetlands would be managed to allow "no net loss" of these habitat types. Effects to cultural resources would be avoided or mitigated. The visual and scenic qualities of the site would be retained through management direction regarding the actual facility development.

Because the entire area is in the 100 year floodplain, all development activities would conform to all pertinent floodplain and environmental regulations, including the Yellowstone County Floodplain Regulations and the Executive Order on floodplain management. Research and studies identified high and low spots within the 100 year floodplain. The proposed location of the interpretive center would be situated on a slightly higher area within the floodplain.

The following alternatives were considered but eliminated from detailed study. Refer to Chapter Two for a detailed description as to why these alternatives were dismissed.

- Co-locate an interpretive center with an MDT highway rest area;
- Construct an interpretive center adjacent to State Highway 312;
- Maintain the existing facilities;
- Upgrade and expand the existing visitor center; and
- Locate the interpretive center off-site.

As a result of this analysis, no significant impacts have been identified as a result of the Preferred Alternative (Alternative B). Although there may be some potential impacts to individual wildlife species during their critical nesting period due to the possibility of expanding the season of use, the wildlife populations in the region would not be affected. The Preferred Alternative (Alternative B) has fewer impacts associated with the location of the day-use area; the day-use area utilizes a portion of the existing day-use area, which minimizes the impacts. There are some trade-offs among the Alternatives in terms of the size of the interpretive center. Alternative A would require $9.4 million, but would provide extensive indoor interpretive opportunities. Alternative B is comprised of phase-in components, with the first phase being $4 million. Alternative B provides for potential cost savings for long-term operations and maintenance, however, there would be less indoor interpretive exhibit space with Alternative B. Both alternatives, however, can include enhanced outdoor interpretation.

There would be some cumulative effects associated with this project. Within the next few years, there would be a series of construction projects occurring simultaneously, including the proposed action, a Highway 312 overpass project and the potential grain elevator. In addition, the general increase in residential growth in the area, coupled with the increased development, may result in increasing traffic.

TABLE OF CONTENTS

Appendices

Maps

CHAPTER 1
BACKGROUND AND ISSUES

INTRODUCTION AND BACKGROUND

The Bureau of Land Management (BLM) proposes to implement a management decision contained in the 1996 Pompeys Pillar Environmental Assessment (EA)/Amendment, with a focus on constructing a new interpretive center at Pompeys Pillar National Monument (herein referred to as Pompeys Pillar). In 1999, the BLM considered a proposal to co-locate the new interpretive center with a Montana Department of Transportation highway rest area. After careful consideration and preliminary analysis, the proposal for a co-located interpretive center/rest area was withdrawn. However, this process identified the need for the BLM to revisit other decisions that were made in the 1996 Pompeys Pillar EA/Amendment, including the size of the interpretive center, the season of operation, and whether to remove the existing visitor center and related facilities.

Public scoping for this Environmental Assessment (EA) was initiated on November 18, 1999, through the filing of a Notice of Intent to Prepare an Environmental Assessment on construction of an interpretive center and other facilities at Pompeys Pillar. The Notice of Intent appeared in the Federal Register on November 26, 1999, and did not contain a specific agency proposed action, but did identify that the EA would analyze the possibility of a Montana Department of Transportation highway rest area at the site.

PURPOSE AND NEED

An improved facility is needed because the current facilities are inadequate to provide a high quality visitor experience at levels of visitation projected to occur over the next 20 years. Visitation to Pompeys Pillar has been increasing. In the period from 1992 until 2000, annual visitation to the site increased 70 percent to approximately 39,000 visitors. It is anticipated that the visitation may triple by the year 2020. The current visitor center, parking and sanitation facilities are inadequate to serve that level of visitation.

Preparations are being made for the anticipated influx of visitation due to the Bicentennial of the Lewis and Clark Expedition (2003-2006). The Pompeys Pillar Interpretive Center was selected as one of the top two projects in Montana by the Montana Lewis and Clark Bicentennial Commission. There is public support for a new interpretive center at Pompeys Pillar to be constructed in time to be available for most, if not all, of the Bicentennial of the Lewis and Clark Expedition. In order to meet that time requirement, the Bureau must refine siting, funding and design questions so that construction could begin in late 2002.

Cost estimates of construction, operations and maintenance of the facility, and estimated site visitation numbers on which the 1996 decision regarding an interpretive center was based, have been re-assessed. Since 1996, the BLM has been working on cost estimates for the interpretive center and has determined that the construction costs were substantially underestimated in the 1996 analysis. In addition, new projections indicate that visitation estimates were overstated resulting in a need to re-examine the analysis.

GENERAL LOCATION

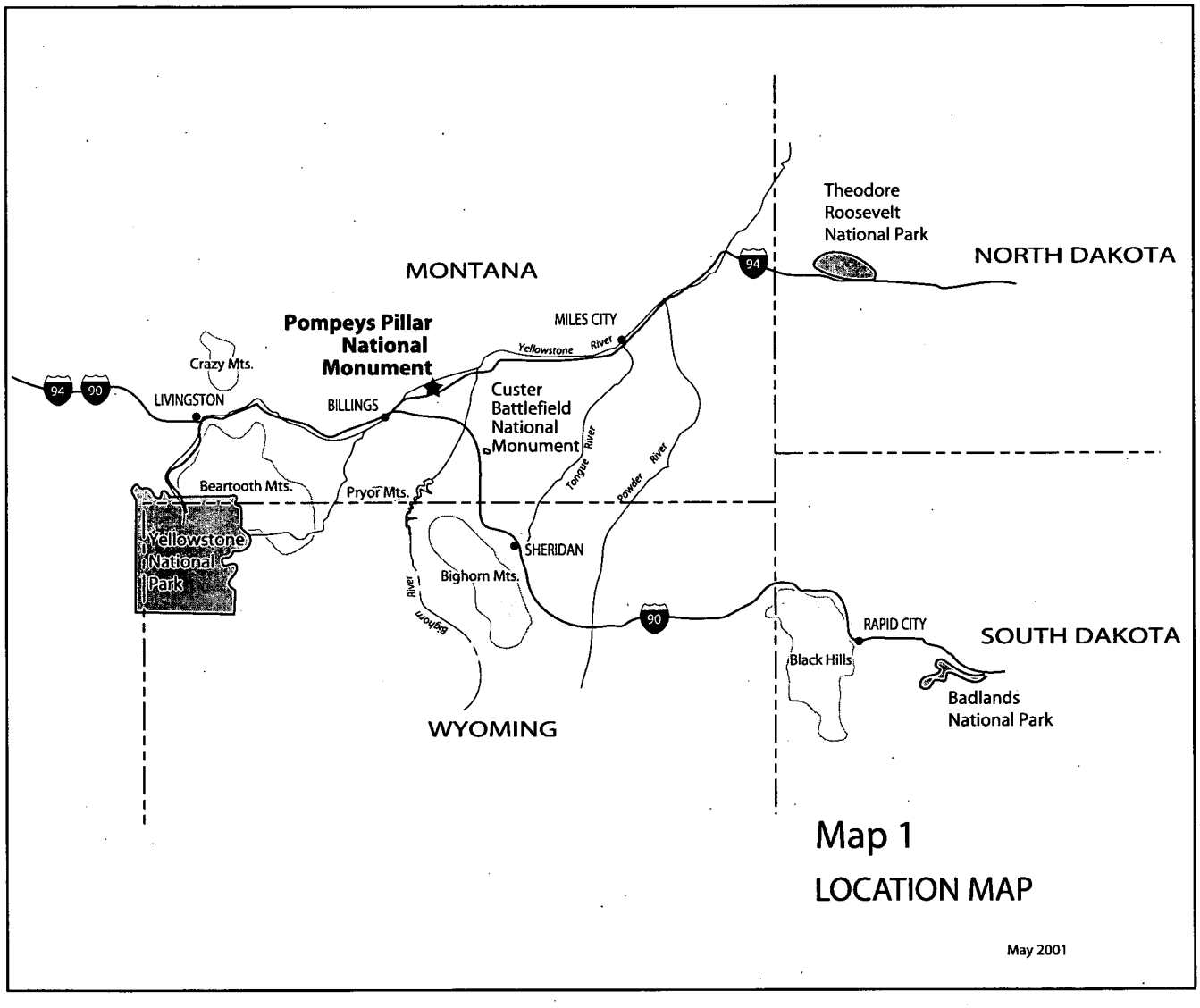
Pompeys Pillar is located along the southern bank of the Yellowstone River approximately 30 miles east of Billings, Montana, in Yellowstone County. The area is framed by Montana Highway 312 to the south, the Yellowstone River to the north, and private land to the west and east. Interstate 94 (I-94) provides easy access to the site through an interchange located midway along the property's southern border. Refer to Map 1.

Nearby communities include the towns of Pompeys Pillar, Huntley, Shepherd and the city of Billings. Pompeys Pillar lies in a tourism corridor which provides easy access to Bighorn Canyon National Recreation Area, Crow Indian Reservation, Little Bighorn National Battlefield, Beartooth Mountains and Yellowstone National Park.

RELATED ACTIONS THAT INFLUENCE THE SCOPE OF THIS EA

Establishment of the Pompeys Pillar National Monument

On January 17, 2001, Pompeys Pillar was designated a national monument under the authority of Section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431), known as


Theodore
Roosevelt
National Park
NORTH DAKOTA
MONTANA
Pompeys Pillar
National
Monument
MILES CITY
Yellowstone River
Crazy Mts.
94
90
LIVINGSTON
BILLINGS
Custer
Battlefield
National
Monument
Tongue River
Powder River
Beartooth Mts.
Pryor Mts.
Yellowstone
National
Park
SHERIDAN
Bighorn Mts.
Bighorn River
90
RAPID CITY
SOUTH DAKOTA
Black Hills
Badlands
National Park
WYOMING
Map 1
LOCATION MAP
May 2001

the Antiquities Act. Fifty-one acres of federally owned land was set apart and reserved as Pompeys Pillar National Monument for the purpose of protecting the ethnographic, historic and archaeological values associated with the massive sandstone outcrop known as Pompeys Pillar. Refer to Map 2.

Designation of Pompeys Pillar as a National Historic Landmark

On July 23, 1965, Pompeys Pillar was officially designated as a National Historic Landmark primarily because of the significance of William Clark's signature and the association of the Pillar with the Lewis and Clark Expedition. The designation was for the pillar land form itself, including six acres above the 2,890 foot elevation contour surrounding the Pillar. Refer to Map 2.

Designation of Pompeys Pillar as an Area of Critical Environmental Concern (ACEC) and Amendment of the BLM - Billings Resource Management Plan

The 1996 Pompeys Pillar ACEC Environmental Assessment and Decision Record amended the 1983 Billings Resource Management Plan (BRMP) and decision record (1984) and designated the Pompeys Pillar Area as an ACEC. The EA considered three different land use allocation configurations and facility development scenarios. The Decision Record provided specific management direction for the entire 473 acre Pompeys Pillar Area and designated all but three acres located south of Interstate 90 as an ACEC. Since 1996, the total acreage for the site decreased to 431 acres due to loss of streambank from erosion during the 1996 and 1997 flood events.

The 1996 Pompeys Pillar EA/Amendment and decision record is herein incorporated by reference. Provided below is a summary of the decisions most applicable to this EA. Additional detailed discussions are provided in Chapters Two and Three of this document:

- Management Zones: The area within the designated ACEC was allocated to three distinct management zones emphasizing different aspects of the setting near the p illar land form (the National Historic Landmark) including: a Historic Zone; a Historic Zone - Developed; and a General Management Zone. Refer to Map 3.

- A moderately sized interpretive center (about 11,000 to12,500 square feet) would be constructed in the Historic Zone - Developed.

- Pompeys Pillar was to be managed as a day-use site. The newly constructed interpretive center was to be staffed from May 1 to October 31.

- Visual Resource Management (VRM) classes were designated with specific management objectives for each VRM class rating.

- The existing access road along the west boundary would be closed and reclaimed and a new, all-weather entrance road constructed.

- The existing visitor center would remain.

DECISIONS TO BE MADE

The focus of this EA is to further refine and adjust decisions related to the interpretive center from the 1996 Pompeys Pillar EA/Amendment. The BLM must decide the following:

1. What size interpretive center should be constructed;

2. Where the interpretive center and related infrastructure should be located within the Historic Zone -Developed. The Historic Zone - Developed was selected as the area in which to generally locate an interpretive center in the1996 decision;

3. Whether the existing visitor center and related facilities should be removed; and

4. What interpretive center operation (season of use) should be provided.

PLANNING ISSUES

This section lists the planning issues identified through public scoping and through interdisciplinary team assessment of the project proposal.

Interpretive Center Construction Costs

The projected costs of constructing a 11,000 to 12,500 square foot interpretive center and related infrastructure, as called for in the 1996 Pompeys Pillar EA/Amendment, may substantially exceed the funding available. The BLM has received a 2 million dollar appropriation to be matched by funds raised by the Pompeys Pillar Historical Association for planning, design and construction of the new interpretive center. Original construction cost estimates in the 1996 Amendment for this size facility were estimated at about 3

million dollars. New information indicates that this cost was underestimated.

Interpretive Center Operation Costs

The projected cost of operating and maintaining a 11,000 to 12,500 square foot interpretive center facility may require substantial reallocation of the BLM recreation funding away from current recreation facility operations within the Montana BLM's jurisdiction. The Montana BLM fiscal year 2001 recreation budget was not sufficient to cover all requested recreation expenditures in the three-state area, which resulted in a program deficit situation. The amount of recreation funds are not expected to increase significantly in the near future. A substantial increase in net operations costs (operation cost less visitor fees) at Pompeys Pillar could impact operation funds available for other recreation and visitor sites. Original estimates of operations costs in the 1996 Pompeys Pillar EA/Amendment for the planned 6 month operation period of about $300,000 annually may be low.

Pompeys Pillar Visitation Projections

New information suggests that the original projected visitation to Pompeys Pillar, on which the interpretive center infrastructure was based, may be too high. The 1996 Pompeys Pillar EA/Amendment projected that annual visitation could reach 250,000 visitors annually. Refer to Chapter Three for more detailed discussion on visitation projections and current visitation.

Yellowstone River Floodplain and Riparian Areas

Concern was expressed that construction of an interpretive center, parking lot, day-use area and related support facilities within the Yellowstone River floodplain could adversely affect floodplain function, adjacent lands, riparian areas, and wildlife and riparian habitat. Concerns were also raised regarding ice jams in the river and the potential to cause damage. These concerns are addressed in Chapter Three of this analysis.

Visual, Historic and Cultural Values

Some members of the public commented that the construction of a new, large interpretive facility may affect the cultural and historical significance of the site as well as the visual aesthetics of the area. There was no new information that suggests there would be impacts to cultural or historic resources. Refer to Chapter Three for analysis of the historic and cultural resources.

As part of this analysis, the BLM conducted a visual resource management (VRM) contrast rating by using visual simulation to ensure the facility would be in conformance with the VRM Class rating for the site. Additional analysis and discussion regarding VRM can be found in Chapters Two and Three.

Other Issues/Concerns

Concerns were raised regarding the indoor/outdoor interpretive exhibits, programs, and specific details regarding the interpretive center (i.e., materials, color, texture, etc). While some of these issues are addressed as part of this analysis, the level of specificity for these issues will be addressed in the design phase of the actual construction project and will not be discussed further in this document.

APPLICABLE REGULATORY REQUIREMENTS, REQUIRED COORDINATION, LICENSES AND PERMITS

This section identifies environmental laws relevant to the proposed activities. Some of these laws require specific coordination with regulatory agencies and/or require licenses or permits. The laws which will affect management decisions for Pompeys Pillar include the National Environmental Policy Act (NEPA) and the Federal Land Policy and Management Act (FLPMA), as well as the following other applicable regulatory requirements. Refer to Appendix 1 for a brief discussion of these requirements.

Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d)
Endangered Species Act of 1973, as amended
Fish and Wildlife Coordination Act (16 U.S.C. 661-666c)
Migratory Bird Treaty Act and Executive Order 13186
Protection of Wetlands (Executive Order 11990)
American Indian Religious Freedom Act of 1978
Archeological Resources Protection Act (ARPA) of 1979
Environmental Justice (Executive Order 12898)
Historic Sites Act of 1935
Indian Sacred Sites (Executive Order 13007)
National Historic Preservation Act (NHPA) of 1966, as amended.
Native American Grave and Repatriation Act of 1990 (NAGPRA)
Section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431)
Clean Air Act
Clean Water Act

Floodplain Management (Executive Order 11988)
Montana Floodplain and Floodway Management Act, 76-5-101-406, MCA
Yellowstone County Floodplain Regulations
Federal Noxious Weed Act of 1974, as amended by Sec. 14 - Management of Undesirable Plants on Federal Lands, 1990
Americans with Disabilities Act Accessibility Guidelines (ADAAG)
Architectural Barriers Act (ABA), 1968
Rehabilitation Act of 1973, Section 504
Uniform Federal Accessibility Standards (UFAS)

CHAPTER 2
DESCRIPTION OF ALTERNATIVES

INTRODUCTION

This chapter describes the alternatives analyzed. The 1996 Pompeys Pillar EA/Amendment provided a framework and specific direction within which to consider alternatives. The interdisciplinary team fully considered two alternatives in this analysis. Other alternatives were considered but eliminated from detailed study; a brief discussion as to why they were eliminated is found below.

Alternative A represents no change in current management direction from the 1996 decision and is considered to be the "no action" alternative.

Alternative A - Continuation of Current Management Direction (Facility Development with an 11,000 to 12,500 square foot interpretive center)

This alternative represents the 1996 Pompeys Pillar EA/ Amendment and Decision Record and identifies a moderate development scenario. Refer to Map 4.

New facilities would be developed in the Historic Zone - Developed. Facility development would include a new interpretive center (approximately 11,000 to 12,500 square feet, which is about half the size of the Great Falls L&C center), maintenance facility, a highly developed day use area and trails. The day-use area would be located immediately north of the interpretive center and would be used for multiple purposes. The day-use area would include both islands of shrub as well as open areas for larger functions. A portion of the day-use area would require some clearing (approximately one acre) of underbrush. Large cottonwoods would remain undisturbed, except where there may be overhead hazards.

The interpretive center would be staffed and open to the public from May 1 to October 30. Outside these dates, the gate and center would be locked, but visitors would be allowed to walk in. Existing facilities would remain and include a small contact station, two vault toilets and other related infrastructure, which was a noted exception to the historic zone management direction provided in the 1996 decision. The existing access road along the west boundary would be closed and reclaimed. A new, all-weather entrance road would be constructed.

Alternative B - Preferred Alternative (Facility development with a 5,700 square foot interpretive center with potential for future expansion)

This alternative was proposed to comply with the general direction of Alternative A (the 1996 Pompeys Pillar EA/ Amendment and decision), but analyzes a smaller interpretive center in the Historic Zone - Developed, and would reduce overall construction, operations and maintenance costs. Refer to Map 5.

The interpretive center would be approximately 5,700 square feet, with the potential for future expansion. Phase-in components to the center, including a new entrance road, parking area, additional interpretation and potential additions, would be a function of funding and visitation. Development would not exceed the level of development analyzed in 1996. The day-use area would be used for multiple purposes and would include both islands of shrub as well as open areas for functions. The day-use area would be located further west than the day-use area in Alternative A and would include a portion of the existing day-use area. Although there would still be an open area, it would not require as much underbrush to be cleared. Large cottonwoods would remain undisturbed, except where there may be overhead hazards. The day-use area would be framed with an irregular vegetation pattern on the border so it appears natural.

The interpretive center would be staffed and open to the public from May 1 to October 30. However, there would be flexibility to be open year-round, depending on funding and visitor demand. Existing facilities, which include a small visitor center, two vault toilets and other related infrastructure, would be removed. The existing access road along the west boundary and existing parking area would be closed and reclaimed when a new, all-weather entrance road is constructed.

MANAGEMENT COMMON

This EA incorporates by reference the 1996 Pompeys Pillar EA/Amendment and Decision Record. A summary of the pertinent decisions and direction brought forward from 1996, that are applicable to this analysis, is provided below. In addition, management that is common to all alternatives is also presented.

Management Zones

The management zones identified in the 1996 Pompeys Pillar EA/Amendment would remain the same and include a Historic Zone, Historic Zone - Developed and a General Management Zone (refer to Map 3).

Historic Zone: This zone would be managed primarily to provide visitor access to Clark's signature in a historic setting. The entire area is to be restored to a setting characteristic of 1806. Modifications of the landscape would be the minimum necessary for visitor safety and protection of the signature and other rock art from further deterioration.

Historic Zone - Developed: This zone would provide an area where most facilities would be placed, including an interpretive center and day-use area. Other facilities (i.e., non-motorized boat launch, interpretive trails, etc.) may be provided at some point in the future. Farming is to be excluded and currently tilled ground restored to a setting characteristic of 1806. Current farming would continue until displaced by facilities or restored to the historic setting.

General Management Zone: This zone would be managed to improve and/or maintain wildlife habitat condition, enhance recreation opportunities and utilize agriculture to facilitate general management. This zone would also provide space, if needed, for maintenance facilities.

Recreation Management

The Tschida farmstead would be removed and reclaimed.

The site would be managed as a day-use site.

Opportunities would be provided to view Clark's signature.

The area near and around developed facilities would be closed to discharge of firearms or weapons. Firearm use in the southwest portion of Pompeys Pillar would be closed from May through October; however, from November through April, the use of firearms would be restricted to shotguns and archery during legal hunting seasons. The remainder of the area would be open to the use of firearms during legal hunting seasons. The use of firearms could be further restricted if needed to protect safety or enjoyment of the site. Refer to the Map depicting hunting zones in the 1996 document.

Wading and swimming in the Yellowstone River would be discouraged. Printed materials and/or information would be provided warning of the hazards of the river.

A fee station would be provided at the entrance road or at the interpretive center.

Law Enforcement/Public Safety

The law enforcement program at Pompeys Pillar is comprised of three components: (1) recreation use management, (2) resource protection and (3) visitor protection.

Recreation Use Management is accomplished through the development and implementation of supplemental rules or policies to control the types, times and locations of various uses allowed on the site.

Resource Protection has two components: Cultural and Natural Resource Protection. The goal of resource protection will be to prevent any damage or destruction of cultural and natural resources by visitors to the site. This program would be implemented through continued and improved electronic surveillance of resources, on-site presence, as well as patrols to educate visitors and detect violators.

Visitor Protection will concentrate on preventing loss or injury to users. The goal of the law enforcement effort would be to ensure that visitors have a safe and informative visit free of loss, injury or interference. The basis for this program would be the development and implementation of supplemental rules that discourage inappropriate activities on behalf of the legitimate users as the need arises.

The Yellowstone County Sheriff's Office augments the BLM's law enforcement capability by providing response assistance to the site. If the level of resource damage or threats to visitor safety increase significantly, the BLM would need to re-evaluate law enforcement efforts and mechanisms for Pompeys Pillar.

Accessibility

The accessibility of all facilities, programs and activities offered by the BLM is a fundamental goal. Facility development would be universally designed from the onset of the project to meet or exceed the requirements of Uniform Federal Accessibility Standards (UFAS) and Americans with Disabilities Act Accessibility Guidelines (ADAAG). The design would also result in an aesthetic and seamless facility for as many people as possible.

Visual Resource Management/Scenic Values

Pompeys Pillar would be managed under two visual resource management objectives. The Pompeys Pillar land form (the NHL) would be managed under a Class II management objective. The remainder of Pompeys Pillar would

be managed under a Class III management objective. (Refer to Chapter Three for detailed descriptions of these management classes). A visual corridor would be maintained from the interchange to the Pillar. Activities within the corridor would be managed so that the Pillar dominates the view of the visitors as they approach the site.

The VRM process is ongoing throughout the design phase, and refinements and adjustments to these directions will need to be made as the building design and site layout move to finalization. The following direction is based on a visual contrast analysis and simulation techniques for the facilities (USDI, 1986 and 1986a).

Landscaping

Cottonwoods, native prairie grass and sagebrush could be used to obscure the new interpretive center, parking area and associated facilities from full view. Cottonwood trees planted in front of the facilities would, after maturity, obscure the view of the facilities. Viewed from the overpass, the trees would appear to be part of the existing riparian vegetation. Under this scenario, vehicles moving along the new access road would be visible, however, their visibility is decreased by several factors. The viewing travelers coming off the overpass are in a moving vehicle which narrows their cone of vision. Also, the distance from the overpass coupled with the elevated view and backdrop of trees reduces the visibility of the moving vehicles.

Color

Color could be used to reduce the contrast between the facilities and the landscape. The color of the interpretive center should blend in with the background during the peak visitor use season, summer. Environmental colors should be used to blend the facility with its immediate environment during the summer months. The visual simulation used to do the analysis depicted the facilities with a light colored roof and brown walls. Because the roof color was lighter than the adjacent natural colors, it appeared reflective. Based on the visual simulation, actual facility color should be a shade darker than the adjacent shade of green produced by the cottonwoods in the riparian zone. A second simulation was completed using green for the roof color and the contrast was significantly reduced. The building should be a darker shade than the background cottonwood trees provide.

Line

A schematic design was used for the interpretive center. The sharp, straight lines of the roof on the schematic design for the center contrast strongly with the irregular lines of the Pillar and the landscape in the visual simulation. If use of colors and landscaping is not sufficient to reduce the visibility of this line, other options might include multiple level roofs, a broken roof line or a roof that repeats the slightly curving line of the Pillar. These may further reduce visual contrasts. Repeating lines and textures of the existing landscape is a technique often used to reduce visual contrasts.

Texture

Texture of the interpretive center could more closely reflect the moderate texture of the landscape. This could be accomplished with the addition of sandstone texture to the center. Large portions of the building exterior surfaces should not be expansive or smooth, but mottled, lined or textured.

Combination

A combination of all of these recommendations would serve to accomplish the goal of the VRM process, lessening the impact of development on the viewshed.

Cultural Resources

Prior to ground disturbance anywhere on the property, a cultural resource inventory would be conducted encompassing the area which would be disturbed. Ideally, to gain an understanding of the context, range and relative condition of the cultural resources present, inventory could be conducted systematically for the entire property. Initially, however, preliminary archaeological work might be limited to smaller areas where construction is proposed. Surface inventory would include examination of the ground surface using pedestrian transects spaced not more than 30 meters apart. Where archaeological resources are identified through a surface expression (artifact scatters or other indications of archaeological deposits) these resources would be fully recorded. Subsurface testing would be necessary to fully assess the subsurface potential of discovered sites for evaluation for the National Register of Historic Places (NRHP). In areas to be disturbed, subsurface testing would also be necessary where archival sources indicate that cultural resources should be present, or where other characteristics of the landscape indicate the potential for buried deposits. Subsurface disturbances would also be monitored as they occur. If cultural resources are discovered during monitoring, work will be halted until the resources can be assessed.

Archaeological resources which are considered eligible for the NRHP would either be avoided, or, in consultation with the Montana State Historic Preservation Officer (SHPO), a plan for mitigating the effects of the proposed actions

would be formulated and implemented. Mitigation would consist of an appropriate level of data recovery, possibly including excavation. The effects of ground disturbance or construction anywhere on the property would also be considered in relation to the Pompeys Pillar monument itself, including their effects on the setting and feeling qualities of the monument.

Effects to significant cultural resources would be avoided or mitigated per 36 CFR 800. Actions would also comply with P.L. 101-601, Native American Graves Protection and Repatriation Act and other applicable laws and regulations.

Fish and Wildlife Habitat

Concentrating/confining facility development and activities would minimize impacts to wildlife from increased noise, traffic and disturbance.

Threatened and Endangered Species

Informal consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act, as amended, was completed for the 1996 Pompeys Pillar EA/Amendment. Those species identified by the USFWS that may occur in the project area were the bald eagle, peregrine falcon, black-footed ferret, and the pallid sturgeon. A letter of concurrence was received from the USFWS that the proposed project was "Not Likely to Adversely Effect" any of these species (Appendix 2). New information was presented by the USFWS in May 2000 that indicated the peregrine falcon had been delisted and the mountain plover had been proposed for listing as a Threatened species.

A review of the proposed project found that the determination made in the 1996 document is still valid for those species currently listed as there are no changed conditions or new information. The peregrine falcon is now considered a BLM Sensitive Species and is protected under the Migratory Bird Treaty Act. Refer to the BLM Sensitive Species discussion below. Habitat for the mountain plover in the project area is minimal in acreage and marginal in quality and the project would therefore not jeopardize the species.

The original determination for the bald eagle is still valid. The bald eagle is the only T&E species known to inhabit the area. If bald eagles re-nest on the island, consultation with the USFWS would be re-initiated. If necessary, actions would be taken to reduce potential impacts to the nest.

BLM Sensitive Species

The spiny softshell turtle is a BLM Sensitive Species and also a Montana State Sensitive Species of Special Concern. To avoid adverse effects to the spiny softshell turtle, any actions associated with the proposed project should avoid bank disturbance in areas of suitable nesting habitat during the period of June through September.

The peregrine falcon was delisted on August 25, 1999, and protection from take and commerce for the peregrine falcon is no longer provided under the Endangered Species Act. However, peregrine falcons are still protected by the Migratory Bird Treaty Act (MBTA). The MBTA and its implementing regulations (50 CFR parts 20 and 21) prohibit take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase, or barter any migratory bird, their eggs, parts and nests, except as authorized under a valid permit (50 CFR 21.11). With limited exceptions, take will not be permitted under MBTA until a management plan, developed in cooperation with state wildlife agencies, undergoes public review, is approved, finalized, and published in the Federal Register.

Neotropical Migratory Birds

Because there are about 180 species of neotropical (New World Tropics) birds in Montana, they will not be discussed individually. These birds summer in the U.S. and Canada and winter in the Caribbean, Mexico, and Central and South America. The habitat objective for neotropical birds would be to maintain or improve riparian vegetation condition to represent diverse, healthy plant communities.

Wetlands/Riparian

The natural riparian areas would be managed for Proper Functioning Condition (PFC). Functioning condition is described in Appendix 3 of this document.

Native cottonwood riparian understory within the Historic Zone and Historic Zone - Developed and the wetlands would be managed to allow "no net loss" of these habitat types. Planting trees/shrubs in the existing (old) day-use area would be done as the new day-use area is developed. Islands of trees/shrubs would be planted or existing trees/shrubs would be retained in the new day-use area to provide many small islands of understory cover. One area, up to 1 acre in size, would be cleared for large functions (underbrush would be removed; large cottonwoods would be undisturbed). The possibility exists to develop wetlands on the property to allow for any wetland acreage lost due to construction.

This proposed project may require a Section 404 permit from the Corps of Engineers. Once wetland impacts are quantified for the preferred alternative, a determination will be made as to the type of Section 404 permit needed.

Vegetation

Periodic removal of dead or dying branches or trees would occur in areas where management actions encourage visitor use and visitor safety is at risk. In keeping with visual resource management recommendations, additional plantings may be done around the proposed interpretive center location. Refer to the riparian section for other related information. Some sod lawn around the building may be provided for visitor safety and comfort, and to provide a fire barrier.

Fire Management

All wildfires would continue to be suppressed. Initial attack would continue to be managed through agreements with local fire departments. Fire planning efforts will be part of a separate analysis.

Floodplain/Water Quality

Studies and research confirm that the entire site at Pompeys Pillar is within the 100-year floodplain. Construction and development activities would conform to all pertinent floodplain and environmental regulations. A description of how this project has or will comply with Executive Order 11988 on Floodplain Management is provided in Appendix 5. In addition, this project is being designed to comply with and be permitted by Yellowstone County Floodplain Regulations that are consistent with, and are more stringent than, the National Flood Insurance Program and the Montana Floodway Management and Regulation Act.

The proposed new building site was evaluated by a number of subject experts. This proposed project may require a Section 404 permit from the Corps of Engineers. The proposed development location is situated on one of the higher areas within the floodplain. Subsequently, limited fill placement or structure modifications would be required. Revegetation and landscaping would be completed around structures to prevent soil erosion, provide flood protection and provide wildlife habitat.

Waste Water Treatment

Waste water treatment systems will comply with Montana Department of Environmental Quality (DEQ) regulations. Consultation with the Yellowstone County sanitarian and Montana DEQ has been ongoing regarding waste water treatment system feasibility in this floodplain. Montana DEQ regulations require two septic treatment sites on the property be located and tested. Identifying and planning for a second site assures an appropriate area is set aside for eventual replacement of the primary site. These sites will undergo extensive soil and groundwater testing to ensure proper design to meet the more stringent criteria for building in a floodplain. Treatment may include conventional and alternative systems, such as mounds, fills, subsurface, or wetlands.

Potable Water, Ground Water Source

A new well would be developed a minimum of 100 feet from surface water and designed for proper completion and in conformance with Montana DEQ drinking water standards. This includes completing a source water protection plan, as well as construction specification and drawing approval. The well would be located to avoid poor water quality and minimize the chance of being classified as under the influence of surface water. Existing wells on site show a marked, undesirable increase of iron, hardness, odor and sulfates as distance from the river increases. A treatment system is being proposed to ensure high quality drinking water is provided. The treatment process would remove objectionable levels of iron, hardness and sulfates, which are constituents classified as subject to secondary treatment standards.

Construction Activities

Activities associated with construction of the facilities would be done in such a way to minimize potential disturbance, including:

- Minimize ground disturbance during construction to reduce the area requiring post-construction rehabilitation;

- Salvage and stockpile as much topsoil as possible for later use to re-establish native vegetation. Excess materials may be incorporated into landscape design and/ or hauled away to an appropriate facility;

- Whenever construction disturbs the landscape, naturalize contours and re-establish vegetation;

- Employ temporary erosion control techniques (Best Management Practices) as required until landscape restoration is completed;

- Overhead power lines would be raptor-proofed in accordance with *Suggested Practices for Raptor Protection on Power Lines* (Avian Power Line Interaction Committee, 1996). Techniques for designing windows to avoid birds hitting them during flight would be utilized as much as possible.

Permits, including a storm water discharge permit and a temporary discharge permit (3A) may be required during construction.

Existing Bureau of Reclamation (BOR) Canals and Ditches

A BOR permit would be required to cross Reclamation canals and ditches. As a condition of the permit, verification of NEPA and NHPA compliance and engineering drawings for all work affecting the canals and ditches will be submitted to BOR well in advance of any proposed construction so the proper reviews can be completed. The BLM would coordinate design and construction activities with BOR and the Huntley Irrigation District in order to avoid or minimize the impacts to the canals, ditches and delivery of water.

Hazardous Materials and Waste Management

The management objective would be to minimize the potential for hazardous materials contamination. All activities involving hazardous materials and waste would be conducted in accordance with the BLM's current and future policies and procedures. No authorizations would be allowed for solid waste or hazardous materials disposal facilities on site.

Livestock Grazing

Livestock grazing in general would not be allowed. However, grazing by selected type and age class of domestic animals would be considered as a management tool and could be authorized to improve vegetation health, weed control, reduce fire danger from excess growth or wildlife habitat management.

Soil and Water Resources

The long-term soil management objectives primarily address the tilled soils. These objectives would be to improve soil productivity, reduce or eliminate the compaction in farmed dryland and irrigated soils, increase soil organic matter content to improve soil aggregation, prevent and/or minimize soil erosion from wind and water, minimize flood damage and protect public and private water supplies.

Air Quality

Management activities would be conducted in a manner that would be consistent with the Montana Class II air quality designation for Yellowstone County.

Weed and Insect Control

The principles of Integrated Pest Management (IPM) would be practiced. The long-term objectives would be to utilize a variety of control methods, including mechanical, cultural, chemical and biological, to control undesirable plants, diseases, insects or animals. Emphasis of IPM would focus on non-chemical methods; however, selected chemicals are vital tools for the prevention or control of plants and animals. Proper management and revegetation of desired plant species would be utilized. In addition, appropriate domestic animals to control undesirable vegetation, or to improve the health of desired plant species and wildlife habitat, could be used as a management tool.

Pesticide treatments would be used according to pesticide label guidelines and the BLM manuals on Chemical Pest Control, and in accordance with pesticide application records and retention guidelines.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

The following alternatives were considered but not analyzed in detail for the reasons provided below.

Co-location of an Interpretive Center with a Montana Department of Transportation Highway Rest Area

This alternative was initially forwarded by the BLM to the Montana Department of Transportation as a potential means to offset interpretive center construction and operation costs through joint construction and operation of an interpretive center and highway rest area facility. This concept appeared attractive to both agencies at the inception, but was abandoned by mutual agreement. Rationale to dismiss the proposal includes impacts to natural and cultural resources and security. In addition, high concentration of noise and lack of adequate sight distance from the interchange, railroad bridge and elevated roadway to allow for the safe access and egress of large trucks and other vehicles to and from the rest area may create impacts. Acreage requirements to support vehicle parking and staging could not be accommodated at the southern end of the site.

Construction of an Interpretive Center adjacent to State Highway 312

This alternative was suggested as a means of providing visitor services away from the immediate vicinity of the Pillar, to avoid impacts to the riparian zone, avoid construction within the 100-year floodplain, and maintain visual aesthetics. After initial study, it was determined that this site created no cost savings for the project. It was also

determined that no site near Highway 312 was above the 100-year floodplain, and in fact was found to be slightly lower than the proposed location. In addition, visitors to this site would have been subjected to considerable distraction from adjacent highway, railroad and commercial development activities and noise that were deemed incompatible with the experience being sought. This site would have split the visitor experience, requiring them to stop at the interpretive center and then re-load to travel to a parking lot to visit the Pillar or vice versa. Protection of the Pillar resources would have mandated dual administrative facilities and staffing, located both at the highway and near the Pillar. The visual intrusion from having an interpretive center adjacent to Highway 312, which would be in plain view from the top of the Pillar, as well as the need to maintain the existing contact station and toilet facilities would create a higher level of development presence in the area.

Maintain Existing Facilities

The existing facilities include a gravel access road on the west property boundary of the site, a small graveled parking lot, an 841 square foot visitor center and 2 vault toilets. The picnic area is located in the Historic Zone. The existing facilities do not adequately meet the current demands of the visitors, and will not be able to accommodate the projected visitation level of 130,000. Retaining the existing facility in the Historic Zone is inconsistent with the direction contained within the 1996 Pompeys Pillar EA/Amendment. It states "Modifications of the landscape would be the minimum necessary for visitor safety and protection of the signature and other rock art form further deterioration," even though it is the noted exception in the Alternative A proposal. In addition, the existing facilities do not have sewer lines, adequate power and water supplies, and are not consistent with direction provided in the Executive Order on Floodplain Management and Yellowstone County floodplain regulations.

Upgrade and Expand the Existing Visitor Center Facility

This alternative was suggested by some as a means to improve visitor services and meet future site demands without the costs of constructing a new center. The existing visitor center is an 841 square foot building, constructed at grade and located just east of the Pillar and within the Historic Zone, as defined in the 1996 Pompeys Pillar EA/ Amendment. An expansion of the existing building would require infrastructure improvements within the Historic Zone, which is inconsistent with the direction contained within the 1996 Pompeys Pillar EA/Amendment. It states "Modifications of the landscape would be the minimum necessary for visitor safety and protection of the signature and other rock art from further deterioration". In addition, the existing facilities do not have sewer lines, adequate power and water supplies, and are not consistent with direction provided in the Executive Order on Floodplain Management and Yellowstone County floodplain regulations.

Locate the Interpretive Center Off-site

This alternative was suggested by some as a means of meeting visitor needs without what they viewed as the negative impacts of facility development on site. Construction of an interpretive center off-site (close to I-94 or in a nearby community) would not provide the visitor a connection with the Pillar and its cultural resources that the center is intended to interpret. Visitors would lose the connection to the site, making interpretive and educational programs difficult. Protection of the Pillar resources would mandate dual administrative facilities and staffing, located both an off-site location and near the Pillar. Therefore, facilities and staffing would still need to be provided on-site, thereby substantially increasing costs. No readily identified site exists for such a facility and the BLM would need to acquire interest in or purchase additional property.

CHAPTER 3
AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This section describes existing social, economic and environmental conditions in the vicinity of Pompeys Pillar in Yellowstone County. The intent of the Affected Environment and Environmental Consequences chapter is to provide baseline information on the existing conditions of the study area and to assess impacts associated with the proposed improvements to the site. This section incorporates by reference the 1996 Pompeys Pillar EA analysis. Only those issues that are pertinent to the proposed action are addressed in this analysis.

GENERAL INFORMATION

Land Ownership and Adjacent Lands and Uses

The current surface acreage for the entire site is 431 acres, which includes an adjacent 107-acre island under BLM administration.

The private lands that adjoin the western and eastern boundaries of Pompeys Pillar are agricultural and are currently being farmed. The private lands directly across the river to the north are also agricultural and are used for livestock grazing. Legal access to Pompeys Pillar is from Highway 312 and the Yellowstone River. A small private in-holding is located within the Pompeys Pillar boundary.

Rights-of-Way and Easements

A right-of-way for Highway 312 is located along the southern boundary of the property. Easements for a gas pipeline and electric transmission lines are also within this highway corridor. There is also an easement for several irrigation ditches.

Climate

Climate of the Pompeys Pillar and the middle Yellowstone River valley area is typical of a cool, continental, semi-arid environment. Summers are warm with temperatures sometimes exceeding 100 degrees, July high temperatures average in the low 80's, while January highs are in the teens. Winters are cold with temperatures sometimes dropping to 40 degrees below zero. Annual precipitation averages 10-14 inches with 60 percent of the growing season moisture coming during May and June. Hail, severe thunder storms and blizzards often occur and sometimes damage property or threaten life.

Geology

Pompeys Pillar is an isolated sandstone formation on the south side of the river bank of the Yellowstone River. The pillar land form rises abruptly more than 100 feet above the surrounding level plain. The materials forming the Pillar, as well as the rugged cliffs on the north side of the river, correspond to the Hell Creek formation.

ASSUMPTIONS

Cost Estimates

Construction and operational costs have been estimated for each alternative to help the reader understand the scope of development. These costs are projections based on the best available information at this stage of the proposals. Actual costs may slightly increase or decrease, but will stay within the level of funding available for the project. A standard range of 8 to 10 percent of total construction costs was used as a basis to estimate the operations and maintenance costs. Actual operations and maintenance costs may in some cases be lower than estimated.

Current operations and maintenance costs for the existing facility in FY 2001 were about $280,000. Under Alternative A, construction costs for an 11,000 - 12,500 square foot building and associated facilities would be about $9.4 million, and the estimated operational costs (based on an average of 8 to10 percent of construction costs) would be about $750,000 to $940,000 per year. Under Alternative B, the estimated construction costs for a 5,700 square foot facility would be about $4 million, with the potential for phased-in improvements (i.e., new entrance road and parking area, exhibits, exterior finishes, potential building expansion, etc.) not to exceed $9.4 million. Estimated operational costs would be $320,000 to $940,000, based on the level of phases completed.

Visitation Projections

Visitation projections for Pompeys Pillar were estimated to be 250,000 visitors in the 1996 Pompeys Pillar EA/Amendment. More recent research and study was conducted to provide a more realistic range of about 130,000 visitors by year 2020. This projection is supported by two studies (Staszak, 2001; BRW, 2001). The more recent visitor estimates are used in this analysis.

Traffic Safety

Current annual traffic levels, based on a visitation level of about 50,000, are estimated to be 17,000 vehicles. A traffic study was initiated as part of the original schematics for a moderate-sized building (11,000-12,500 square feet) with visitation projections of about 250,000 visitors per year. This translated into an estimated 83,000 vehicles per year. That study indicated a need to implement some traffic safety controls such as a de-acceleration lane. With the new data on the anticipated visitation levels (130,000 a year by 2020) and a smaller facility, a revised traffic study may need to be completed to determine what modifications, if any, would be required to ensure traffic safety. It is estimated that about 43,000 vehicles would enter the site per year at the full visitation level of 130,000, which is a 52 percent decrease in vehicular traffic from Alternative A. It is possible that a de-acceleration lane may not be required. The traffic study would be done in coordination with the Montana Department of Transportation as part of the entry permit process for the access road. Any traffic safety controls, specific road entrance location recommendations and other requirements will be studied at that time.

IMPACTS COMMON

Cultural, Paleontological and Historical Resources

Affected Environment - Pompeys Pillar is composed of materials laid down as marine and terrestrial deposits during the upper Cretaceous period. The Cretaceous period was the Age of Dinosaurs, and has yielded a fossil record that is noted worldwide. Although no animal or plant fossils have yet been documented on or within the deposits making up Pompeys Pillar, significant fossils have been found in similar sandstone beds nearby.

In 1965, Pompeys Pillar was designated a National Historic Landmark under the Historic Sites Act of 1935. In 1983, the Pillar was listed on the National Register of Historic Places as a significant cultural property. On January 17, 2001, a total of 51 acres including the Pillar and the cottonwood gallery was established as a National Monument.

Pompeys Pillar is well within territory historically acknowledged as the homeland of the Apsaalooke, or Crow people. The Pillar's name in the Crow language, Iishbiiammaache, is variously translated as "Where the Mountain Lion Lies", "The Mountain Lion's Lodge", or "Where the Mountain Lion Preys." The Pillar is referred to in Crow oral history.

The strategic setting of Pompeys Pillar at an important ford of the Yellowstone, and its remarkable appearance virtually guaranteed its place as a landmark for the native people of the Northern Plains through the region's more than 11,000 years of occupation. The Pillar was used for centuries as a favored campsite by the Crows and other groups as they traveled through the area on hunting, trading, war or other expeditions. Ethnographic and archeological evidence suggest that the Pillar was also a place of ritual and religious activity.

The earliest Euro-American explorers to visit Pompeys Pillar are unknown. Some of the well-documented accounts of explorers in the area include a French-Canadian trader named Menard. He passed through this portion of the Yellowstone Valley in the last decade of the eighteenth century with a Crow and Hidatsa war expedition that captured Sacagawea and other Shoshone children from the Rocky Mountains. William Clark of the Lewis and Clark Expedition was the first United States military expedition to explore the unrecorded territories of the upper Missouri River basin and the Columbia River basin. Clark arrived at the Pillar on July 25, 1806, and inscribed his name and date in the soft sandstone and recorded doing so in his journal. Clark named the sandstone outcropping "Pompey's Tower" in honor of Jean Baptiste Charbonneau, the son of Sacagawea and the guide Toussaint Charbonneau. "Pompy" or "little Pomp" was Clark's pet name for the child, and is taken from a Shoshone word for "chief." After the L&C Expedition, there were many accounts of fur traders, military and railroad personnel, as well as other visitors to the rock.

Numerous historic markings and other etchings can still be found on the Pillar. Without protection, ongoing weathering of the sandstone surfaces of the Pillar will result in the eventual loss of all the rock art and inscriptions, except the Clark signature with its protective glass covering. In addition to the natural deterioration of the rock's surfaces, several relatively minor incidents of vandalism have occurred since the BLM acquired the property. Currently, features are monitored and protected by several systems, including a camera and alarm system to monitor Clark's signature.

The property includes two extensive land forms which could harbor archaeological and historical remains. The first of these is the lower terrace lying north and east of the Pillar. This land form has not been cultivated and is pres-

ently covered with a dense cottonwood riparian woodland. Based on the 1806 Clark manuscript map, and on nineteenth century photographs and survey plats, the lower terrace is believed to have accumulated since the beginning of the twentieth century. Its formation may be the result of adjustment of the Yellowstone River to the effects of the Huntley Irrigation Project and other large upstream irrigation systems. The potential for archaeological deposits on or within this land form is limited to early twentieth century remains. Because the lower terrace is within the floodway, an area regularly subjected to relatively high velocity stream flow, substantial intact archaeological remains of any kind are unlikely. Construction or other activities would be unlikely to adversely and directly affect historic properties, although any modifications to this terrace would have to be considered in relation to their effect on the setting and feeling qualities of the monument.

A second major land form is the higher terrace east and south of Pompeys Pillar. The greater part of this land form has been under cultivation for between 50 and 100 years. Considerable surface inventory and subsurface testing have already been conducted on the upper terrace. The results of this work indicate that disturbance to sites in cultivated portions of the property has already reached a maximum. Further significant displacement horizontally or vertically is unlikely unless the fields are subjected to deeper plowing. Important archaeological information may be retrievable from artifacts and debris scattered within the plow zone, even in their disturbed state. Diagnostic artifacts such as projectile points, or concentrations of materials that can be related to a single component or occupation, such as household debris from a particular homestead occupation, may be identifiable. For the most part these plow zone materials have been mapped in place and collected. As additional materials appear, they will be plotted and collected as well. Change to a less disruptive land use, such as permanent planting to native vegetation would not adversely affect cultural resources in areas formerly cultivated.

Exceptions to this situation exist where cultural deposits are present below the plow zone. Testing in 1999 in the vicinity of the proposed interpretive center location identified one such subsurface pocket with intact prehistoric archaeological remains. Other substantial pockets of intact materials were not discovered elsewhere in the vicinity, despite considerable testing effort. Intact materials could be present in areas that have escaped cultivation, such as along fence lines, irrigation ditches, or near other modern features. Testing has not yet been undertaken in areas near the highway. Subsurface materials could exist here below the plow zone or in uncultivated areas. Any materials discovered would have to be treated so that no adverse effect is sustained, probably through avoidance, but possibly through data recovery.

The system of irrigation laterals and drains on the property are a part of the Huntley Irrigation Project. Portions of the Huntley Irrigation system are eligible for listing on the NRHP. As additional components are recorded, including those on the property, they will be evaluated in the context of the system. Prior to any disturbance of irrigation features, the irrigation system on the property would be recorded and evaluated. For those features which would be adversely affected by a proposed action, and which are found to be eligible individually or as contributing elements of an eligible cultural property, an appropriate plan to mitigate the effects of the actions would be formulated and implemented in consultation with the Bureau of Reclamation and the SHPO. Prior to any disturbance of these features, legal questions regarding modification of this functioning irrigation system would have to be answered.

Recent archeological testing was initiated in the area of the proposed facilities. The testing resulted in finding intact prehistoric deposits. This site has been marked and will be avoided during construction. Interpretive and educational opportunities exist for this site and other archeological and historical remains on the property. Additional studies have been undertaken in an effort to capture and record the other historic signatures and rock art.

Impacts Common - During surface disturbing activities, any subsequently discovered archaeological resources which are considered eligible for the National Register of Historic Places (NRHP) would either be avoided or, in consultation with Montana State Historic Preservation Officer (SHPO), a plan for mitigating the effects of the proposed actions would be formulated and implemented

Native American Religious Concerns

Ethnographic and archaeological evidence suggest that the Pillar was a place of ritual and religious activity. However, it is not anticipated that any of the alternatives would interfere with the inherent right or freedom to believe, express, and exercise traditional religions, including access to religious sites, use and possession of sacred objects, and freedom to worship through ceremonial and traditional rites as established in the American Indian Religious Freedom Act of 1978 and Executive Order 13007, Indian Sacred Sites.

Consultation with the Crow and Northern Cheyenne Tribes has been ongoing since the inception of this project. Most recently, the BLM consulted with the Crow Tribe in January and May 2001.

Environmental Justice

Federal agencies are required to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low income populations (Executive Order 12898). During the course of this analysis, the BLM considered all public input from persons or groups regardless of age, race, income, or other social/economic characteristics.

The population composition of the counties surrounding the Pillar indicate that minority and low-income populations are present. The highest proportions of minorities and low income people occur south of the Pillar in Rosebud and Big Horn Counties where the Crow and Northern Cheyenne Reservations are located. Consultation has been completed several times with the Tribes; consultation most recently occurred in May 2001.

A review of this analysis indicates no disproportionately high and adverse effects on minority or low income populations. None of these alternatives would result in changes in these demographics or affect the poverty status of these people. Environmental justice is not an issue for this EA .

Vegetation (including non-native and invasive species)

Affected Environment - Unfarmed areas are dominated by cottonwood, willow, Russian olive (a non-native species) and buffaloberry. Noxious weeds including spotted and russian knapweed, houndstongue, leafy spurge and Canada thistle, as well as other weed species such as common burdock, poison ivy and stinging nettle occur or may occur at Pompeys Pillar. The effects of biological control agents on field bindweed, leafy spurge, Canada thistle, and Russian knapweed are being studied through a research project initiated in 1992. These studies are ongoing. Integrated weed management with biological and chemical control has been used and will continue to control and prevent the spread of weeds.

Refer to the wetlands/riparian analysis for more detailed discussion wetland/riparian vegetation.

Impacts Common - The periodic removal of dead and dying limbs and trees to ensure public safety would slightly lessen the natural appearance of the wooded areas.

Soils (including Prime and Unique Farmland) and Topography

Affected Environment - Soils located at the Pompeys Pillar area have developed from alluvium typical of the Yellowstone Valley floodplain. Silty clay loam textured soils dominate and are distributed as irregular soil patterns common to alluvial river floodplains. Soil capability classes indicate the suitability of the soils for most crops and range from I to VIII, with I having the fewest limitations that restrict their use. At Pompeys Pillar, the soil capability classes range from II to IV with approximately one third of the 200 acres currently being farmed in Class IV. Class IV soils are marginal for use as cropland, having salts, clayey textures or other problems requiring a high degree of management skill for long-term economic production. Class IV in this area are not as productive as Class II or III soils. Typically irrigated crops grown in the immediate area are sugar beets, corn, alfalfa hay, and cereal grains such as barley, wheat and oats. Although the soils and farming techniques at the Pillar are typical for the Yellowstone Valley, the soil types at the Pompeys Pillar area do not meet the national classification requirements for Prime and Unique Farmland.

The farmed and irrigated soils are relatively level with 0-2 percent slopes. The area immediately north and east of the proposed interpretive center is the most prone to flooding. The floodplain study that was conducted determined this area to be the floodway. A portion of this area, immediately north or northwest of the center, would be used as a day-use area.

Impacts Common - There are no change in impacts from the 1996 Environmental Assessment, with the exception of updated soils information that does not support the designation of the area having prime farmland soils. About 50 acres of farmland are being considered for conversion to short-grass prairie vegetation. Impacts of changing land use on this very small acreage would be insignificant, compared to the total acreage of farmland currently under cultivation in the Yellowstone Valley or the region.

Livestock Grazing

Affected environment - Prior to acquisition, the 366-acre parcel was grazed by domestic livestock, which was typical of local grazing practices to utilize crop residue. Since acquisition, livestock grazing has not been authorized. The adjacent 107-acre island is a tract of public land without an established grazing preference lease. However, grazing by selected type and age class of domestic animals would be considered as a management tool and could be authorized to improve vegetation health, control weeds, reduce fire danger from excess growth, or wildlife habitat management.

Impacts Common - There would be no loss of grazing preference as none has ever been established. Wildlife, particularly migrating geese and ducks, and local pheasants

would benefit by having an additional, however small, food source.

Air Quality

Affected Environment - Through the Clean Air Act Amendments of 1977, Congress established a system for the Prevention of Significant Deterioration (PSD) of "attainment" and "unclassified" areas. Pompeys Pillar has a PSD Class II air quality designation which allows moderate and controlled growth. ACEC guidance indicates that management activities would be conducted in a manner that would preserve the Montana Class II air quality designation for Yellowstone County.

Impacts Common - Any decisions or actions identified in this plan would also comply with air quality legislation, including the Clean Air Act. Activities associated with the construction of the interpretive center and related infrastructure would temporarily increase dust and exhaust, but would not exceed the PSD Class II air quality.

Area of Critical Environmental Concern (ACEC)

The Federal Land Policy and Management Act of 1976 (FLPMA) requires that the BLM give priority to the designation and protection of ACECs. Pompeys Pillar area was found to possess the relevance and importance criteria necessary for ACEC designation and was designated an ACEC in 1996, primarily for historic and cultural values. Fish and wildlife resources and status as a natural system or process were additional relevance components of the designation. The ACEC sets forth management prescriptions for the site, which included the designation of management zones (refer to Chapter Two). An interpretive center would allow for more interpretation and education about the site. All actions are consitent with the ACEC prescription.

Wastes, Hazardous or Solid

The Resource Conservation and Recovery Act of 1976 (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) provide for management concerning hazardous or solid wastes. RCRA covers solid waste, hazardous waste, and underground storage tanks, while CERCLA addresses the problems of hazardous waste at inactive or abandoned sites or of hazardous waste spills. Use of underground storage tanks must be in accordance with RCRA, and use, production, or storage of chemicals must comply with CERCLA. It is not anticipated that any activities at the site would result in the types of conditions regulated by CERCLA and RCRA. Also refer to Water Treatment discussion in Chapter Three. The area would be managed to minimize the potential for hazardous materials contamination. All activities involving hazardous materials and waste would be conducted in accordance with the BLM's current and future policies and procedures. No authorizations would be allowed for solid waste or hazardous materials disposal facilities on site. No impacts are likely with either alternative.

Wilderness

Pompeys Pillar does not meet many of the criteria for potential wilderness designation that is set forth under FLPMA. In addition, the site also shows considerable man-made modification, and does not satisfy the criteria of being unmarked by man's actions.

Wild and Scenic Rivers

The Wild and Scenic Rivers Act (WSRA) of 1968 (as amended) provides a way to protect selected streams in their "free-flowing condition" together with their immediate environments for the benefit of present and future generations, rather than allowing them to be developed by the building of dams and other stream altering features. The Yellowstone River has not been designated a Wild and Scenic River.

IMPACTS BY ALTERNATIVE

Wildlife/Fisheries

Affected Environment - The area supports a variety of wildlife species, some resident and some migrant. Mule and whitetail deer, turkey, raccoon, fox and coyote inhabit the area. Upland game birds present include pheasant, Hungarian partridge and sharptail grouse. Waterfowl extensively use the wetland area, river, canals and cropland, especially during the spring and fall. Nongame birds are abundant. A list of birds common to a similar habitat type is found in the 1996 document. This list is also supported by recent sightings at the Pillar (Wolf, 2000).

Fish species include channel catfish, smallmouth bass and sauger. These species occur both in the Yellowstone River and the perennial stream in the southeast area of Pompeys Pillar. The 1996 analysis contains a list of recorded, unrecorded and past fish species in the vicinity of Pompeys Pillar.

New information includes Montana State Species of Special Concern including the spiny softshell turtle, Woodhouse's toad, hognose snake and pale milk snake. With the exception of the snakes, these species are prima-

rily dependent on the riparian/wetland areas near the river, such as the slow water channels and floodplain in the riparian area.

Further clarification is being made in this analysis regarding bank stabilization along the Yellowstone River based on new information. Bank stabilization techniques would only be used if they were deemed absolutely necessary to protect the Historic Zone values and property. Bank stabilization techniques would include rock vanes and bendway weirs. Blanket rip-rap with large rock would not be an available technique and would not be used due to the negative impacts on fisheries and streambank habitat. Stabilization efforts and/or fisheries habitat improvements on the perennial stream remain the same as in the 1996 analysis.

A study was published in 1999 on the "Effects of Recreation on Rocky Mountain Wildlife in Montana" by the Montana Wildlife Society. The study analyzed the increasing effects to wildlife from human recreation. Disturbance impacts to wildlife, fisheries and neotropical birds would be minimized by confining and concentrating human and facility disturbance to a localized area.

Wildlife/Fisheries Impacts from Alternative A - Impacts would be similar to the 1996 analysis (page 63 and page 74 of 1996 analysis). In comparison to Alternative B, Alternative A would create additional impacts to wildlife habitat caused by the development of the proposed day-use area. The riparian area and described wetlands within the project area are representative of an important habitat type that is very limited across the landscape. Any manipulation of vegetation and/or removal of trees would reduce the habitat value for the species which depend upon it. The multi-strata assemblage of riparian vegetation, downed large, woody debris, large diameter trees, snags and associated cavities and insects provide important habitat for a variety of birds and small mammals. Even though the day-use area is about 2.15 acres in size, the loss can be multiplied several times because this type of habitat is so scarce.

Restoration of the existing day-use area would offset some of the described impacts over the long term, but would not mitigate all habitat losses. The existing site has been compacted and sod-bearing grasses dominate the site. Planting, seeding and management of the existing site may increase vegetation cover and structure and increase the number of native plant species in the long term; however, it is unlikely that the natural condition would be fully duplicated.

Developing wetlands near the highway (refer to Map 4 or 5) would increase habitat for shorebirds, amphibians, some waterfowl and other related avian species. The development of these wetlands would result in a no net loss in total acres but would not replace the wetlands that formed naturally under the cottonwood canopy along the river. Limiting the season of use from May 1 to the end of October would reduce disturbance to breeding birds and other wildlife species during the spring. Fewer species may experience reduced productivity or displacement because visitation is not encouraged during that crucial breeding period.

Wildlife/Fisheries Impacts from Alternative B - Many of the impacts are similar to those described in the 1996 analysis (page 63 and 74 of the 1996 document). Compared to Alternative A, the amount of habitat lost or degraded as a result of some of the development would differ.

The day-use area (about 2.15 acres in size) for Alternative B would utilize a portion of the existing day-use area. Species that have adapted to the habitat modification should not be affected by this alternative. Those displaced may return because the western portion of the existing picnic area would be restored to its natural condition in the long term. Alternative B retains much of the riparian area and wetlands north of the interpretive center in its natural condition, thereby reducing human activity in that area. This alternative would have much less of an impact on riparian-associated wildlife species when compared to Alternative A.

The development of additional wetlands to account for the potential loss to Wetland 2 is no longer necessary with this alternative. If additional wetland habitat is desired in the future, this alternative would not preclude that activity.

Early nesting birds, migratory birds and year long resident wildlife may be exposed to greater disturbance by human activities because this alternative may extend the season of use to a year long operation. Wildlife species sensitive to human presence may experience loss in productivity or relocate to adjacent habitats. This would likely result in the loss of individual animals, but would not adversely affect population in the whole region.

There would be a very small increase in the available food sources and wildlife space available due to the smaller foot print of this scaled-back building. About 5,000 to 6,000 additional square feet of farmland space would be available for wildlife forage and space with this alternative. Species preferring short grass prairie habitat would benefit.

Threatened or Endangered (T&E) Species

Affected Environment - Any activity at the site which may affect threatened or endangered species must comply with the Endangered Species Act of 1973, as amended. Informal consultation with the U.S. Fish and Wildlife Service has

identified three listed and one proposed species that may occur in the area. They are the bald eagle (Haliaeetus leucocephalus), black-footed ferret (Mustela nigripes), pallid sturgeon (Scaphirhynchus albus), and mountain plover (Charadrius montanus) (proposed Threatened). Habitat for the mountain plover in the project area is minimal in acreage and marginal in quality and the project would therefore not jeopardize the species.

High water tables and river bottom floodplain preclude the area from providing suitable habitat for prairie dogs on which the black-footed ferret is dependent; thus, the area does not provide suitable black-footed ferret habitat.

The proposed project will not affect quantity or quality of water in the Yellowstone River and therefore will not affect the pallid sturgeon.

There are no known threatened or endangered plants in the area.

The bald eagle is the only T&E species known to inhabit the area, with the highest use in the spring. The bald eagle nest west of the Pillar has been located. A small circular boundary that runs over the west rim of the Pillar itself and a small area immediately north and south of the Pillar is the only area within the 1/2-mile buffer zone of this nest. The nest is further buffered by a large cottonwood tree stand between the Pillar and the nest.

T&E Impacts from Alternative A - None of the actions considered for any of the alternatives is likely to affect or jeopardize any threatened or endangered species or destroy or modify habitat of such a species, as provided for in the Endangered Species Act of 1973. The proposed construction activities would occur outside the 1/2-mile buffer zone of the bald eagle nests.

T&E Impacts from Alternative B - None of the actions considered for any alternatives is likely to affect or jeopardize any threatened or endangered species or destroy or modify habitat of such species. The expanded season of use under this proposal may expose bald eagles to more human disturbance during the winter and early spring months, but would not impact or affect the population.

BLM Sensitive Species

Affected Environment - Appendix 4 includes information on BLM Sensitive Species. The table presents an evaluation of the project area for the presence of the species and/or suitable habitat for each species. If the project area is not within the range of the species or if there is no suitable habitat for the species in the project area, the proposed action would have no effect on the species. Only those species whose range encompasses the project, and for which suitable habitat is present, are discussed in this analysis.

BLM sensitive species known, suspected, or which may potentially occur in the project area include the black tern, hairy woodpecker, and spiny softshell turtle.

The black tern breeds in shallow freshwater marshes with extensive stands of emergent vegetation and areas of open water including prairie sloughs, lake or pond margins, shallow river impoundments, wet meadows, swampy grasslands and occasionally river or island edges. Black terns nest semicolonially in emergent vegetation in biologically rich wetlands. Areas within and adjacent to river channels and backwaters in the project area may provide suitable habitat. Black terns forage on insects and small fish which could be secured from the river and possibly back channels. Although some suitable habitat may be present in the nearby vicinity of the proposed action there is no documented occurrence of the species in the area.

The hairy woodpecker may make use of trees in the cottonwood bottoms within the project area. Nesting, roosting, and foraging habitat is provided in this vegetative community. Removal of dead standing snags would result in loss of habitat. Removal of snags during the spring and summer months could result in injury or death of animals if a nest tree was felled. Removal of dead limbs and tops during the nesting season could displace individuals or cause abandonment of nests. Although this project could cause adverse effects to individuals of the species it would not lead toward federal listing of the species.

The spiny softshell turtle is also a Montana State Species of Special Concern and is briefly discussed in the Wildlife/Fisheries section. The spiny softshell turtle is primarily a riverine species of shallow well-oxygenated water. It is almost totally aquatic and rarely leaves the water except to lay eggs or find a better water source. Little information is available on the reproduction of this species in Montana but sites with loose and moist soil, such as sandy beaches or river islands, are generally suitable for nesting. Large numbers of females may utilize the same area for nesting. Females begin to look for nest sites in late March or April following mating. Eggs are laid in June and July and young hatch in August and September depending on temperature. Spiny softshell turtles forage in the water on prey such as fish, frogs, tadpoles and crayfish. To avoid adverse effects to the spiny softshell turtle, any actions associated with the proposed project should avoid bank disturbance in areas of suitable nesting habitat during the period of June through September.

BLM Sensitive Species Impacts from Alternative A - No actions associated with the implementation of this project would impact black tern habitat and there would be no effect to the black tern should it occur in the area. Although this project could cause adverse effects to individuals of the hairy woodpecker and reduce suitable habitat in the day-use area, it would not lead toward federal listing of the species. Actions associated with the project should avoid bank disturbance in areas of suitable nesting habitat during the period of June through September, thereby resulting in no impacts to the spiny softshell turtle.

BLM Sensitive Species Impacts from Alternative B - Alternative B is similar to Alternative A for many of the species, including the black tern and spiny softshell turtle. This alternative retains the day-use area in a portion of its current location so that much of the riparian area immediately north of the interpretive center would remain intact and undisturbed. Mature cottonwood trees and standing snags would remain on the site to the benefit of the hairy woodpecker.

The expanded season of use under this proposal may expose sensitive species to more human disturbance during their critical breeding season. Keeping the interpretive sites near the Pillar would discourage human activity during this breeding period and reduce potential impacts to sensitive species in the area.

Wetlands/Riparian Zones

Affected Environment - Updated, more detailed information has been collected since the 1996 Pompeys Pillar EA/ Amendment (BRW, 2000). There are five wetlands within the Pompeys Pillar area which are described below. Refer to Map 6.

Wetland 1 is a jurisdictional wetland located within a broad band of riparian vegetation north of the existing gallery forest picnic area and south of the south bank of the Yellowstone River. This wetland is approximately 2.5 acres in size. This wetland would be classified by the National Wetlands Inventory (NWI) as a palustrine, scrub-shrub/forested wetland (PSS/FO). This wetland has an overall assessment rating of I (a wetland quality indicator with I being the highest quality). Dominant vegetation within the herbaceous stratum includes reed canary grass and sedges. Dominants in the shrub stratum includes sandbar willow and red-osier dogwood. Plains cottonwood is dominant in the sampling and tree strata. All of the dominant plant species are considered to be wetland plants (Reed, 1996). A multi-strata assemblage of riparian vegetation within this wetland provides excellent habitat for migrating neotropical songbirds, and a variety of small mammals. Many of the standing plains cottonwoods within this wetland are between 100 and 120 years of age. These large trees are near the end of their lifespans, though rotted hollows within them provide important habitat for a variety of birds and small mammals. Dense standing and fallen vegetation within this wetland serves to stabilize river banks and trap sediment during flooding events of the Yellowstone River.

Wetland 2 is a jurisdictional wetland located adjacent to and extending west of a ditch running north-south through the BLM property and is approximately 0.07 acres in size. This wetland lies at the base of a small embankment which separates the existing picnic area from a slightly elevated terrace upon which is situated the existing parking lot. This wetland would be classified by NWI as palustrine, emergent/scrub-shrub, temporarily flooded wetland (PEM/SSA). This wetland has an overall assessment rating of III (a wetland quality indicator with III being the lowest quality). Dominant plant species within this depressional area include reed canary grass and smooth brome. Vegetation within this depression marginally meets the definition of hydrophytic vegetation. Thick herbaceous vegetation within this wetland provides foraging and loafing cover for a variety of small mammals, and serves to settle sediments during floods of the Yellowstone River.

Wetland 3 is a jurisdictional wetland located directly north of Highway 312 in the south-central portion of the BLM property, characterized as a depressional on the broad Yellowstone River floodplain. This wetland is approximately 6.0 acres in size. This wetland would be classified by NWI as a palustrine emergent/scrub-shrub seasonally flooded wetland (PEM/SSC). This wetland has a overall assessment rating of III. This depressed area is primarily wet meadow, emergent march, with a sparse shrub stratum. Dominant species in the herbaceous stratum include reed canary grass, Kentucky bluegrass and cattail. Red-osier dogwood and sandbar willow are subdominant in the shrub stratum.

Wetland 4 is a jurisdictional wetland located in a wide portion of the ditch that runs parallel with and directly north of Highway 312 and is approximately 0.30 acres in size. The east end of the wetland is directly south of the eastern-most gated entrance. Topsoil in this portion of the ditch has been scraped for use as road ballast. This wetland would be classified by NWI as a palustrine, emergent/scrub-shrub seasonally flooded wetland (PEM/SSC). This wetland has an overall assessment rating of III. The plant community that has developed is characterized as a wet meadow and sparse shrub scrub wetland. Reed canary grass is dominant in the herbaceous stratum and sandbar willow is dominant in the shrub stratus. This area is used by beaver as evidenced by many small fallen cottonwoods and willows. Though disturbed from earth-moving activities, this area provides

foraging, loafing, and traveling cover for a variety of small mammals and birds.

Wetland 5, a non-jurisdictional irrigation drain ditch, runs roughly in an east-west direction in the southern third of the project area. This ditch is part of the Huntley Irrigation Project near its terminus where it is diverted into the Yellowstone River. Dominant species in the ditch bottom are reed canary grass and smooth brome grass. Cattails are subdominant in scattered patches throughout this ditch. This ditch meets wetlands parameters, but it is considered non-jurisdictional because it was constructed in uplands and is not adjacent to any wetlands.

There are two riparian areas present. A natural riparian area occurs along the Yellowstone River. A modified riparian area occurs along the perennial stream that also served for irrigation water return. The riparian area along the river contains several cottonwood community types (C.T.) as classified by the Montana Riparian Association:

1. *Populus deltoides (black cottonwood)/Cornus Stolonifera (red-osier dogwood)* C.T.;

2. *Populus deltoides/Amelanchier alnifolia (western snowberry)* C.T.;

3. *Populus deltoides/Recent Alluvial Bar* C.T. - island area;

4. *Populus deltoides/Herbaceous* C.T. - existing picnic area.

The riparian area along the perennial stream is classified as a *Sherpherdia argentea* C.T. and *Sarcobatus vermiculatus* C.T. - southeast perennial stream and large drain ditch.

Wetland/Riparian Impacts from Alternative A - The day-use area in Alternative A would potentially impact all or parts of Wetland 2, which is a category III wetland. However, based on the conceptional nature of the designs at this time, it is unlikely it would impact 100 percent of Wetland 2.

The parking areas would not impact any wetlands. The new access road would potentially impact a small section of non-jurisdictional Wetland 5 at proposed crossings. It is possible that Highway 312 may require widening and provide a turn lane into the site when a new entrance road is constructed. There is a possibility that Wetland 4 would be impacted as a result of the widening. A determination will be made regarding the need for a turn lane during the design phase. Wetlands 1 and 3 would not be impacted by this alternative.

Locations of improvements would likely be shifted slightly within the "bubbles" identified on the conceptual plans to avoid impacts to wetlands. By managing the riparian area for Proper Functioning Condition (Appendix 3), reclamation of the drain ditch crossing on the existing access road, the potential development of new wetlands and the use of Best Management Practices and/or avoidance measures, there would be a "no net loss" of wetlands/riparian areas from the proposed action. Managing riparian areas in Proper Functioning Condition would benefit all fish and wildlife species that occupy the area.

Wetland/Riparian Impacts from Alternative B - In Alternative B, the location of the day-use area would avoid impacts to Wetland 2. All other impacts would be similar to Alternative A.

The parking areas would not impact any wetlands. The new access road would potentially impact a small section of non-jurisdictional Wetland 5 at proposed crossings. It is possible that Highway 312 may require widening and provide a turn lane into the site when a new entrance road is constructed. There is a possibility that Wetland 4 would be impacted as a result of the widening. A determination will be made regarding the need for a turn lane during the design phase.

By managing the riparian area for Proper Functioning Condition (Appendix 3), reclamation of the drain ditch crossing on the existing access road, the potential development of new wetlands and the use of Best Management Practices and/or avoidance measures, there would be a "no net loss" of wetlands/riparian areas from the proposed action. Managing riparian areas in Proper Functioning Condition would benefit all fish and wildlife species that occupy the area.

Recreation

Affected Environment - Pompeys Pillar is a unique site and offers exceptional recreational activities. The site serves as a key point in the return journey of Captain William Clark and his party and is distinguished from other sites along the L&C Trail in that it bears Clark's signature, the only on-site physical evidence, accessible to the public, of the expedition's passing. There are several aspects of Clark's return voyage that make it unique. Few lengths of the expedition were marked by a separation of Lewis and Clark. This site is located on a route where Clark and his party were separated from Lewis' party. Clark's party included Sacagawea, "Pomp", her baby boy for whom Clark named Pompeys Pillar, and an African American slave named York. Each made significant contributions to the success of the expedition. Sargeant Pryor, part of the Clark party, also played a key role on the return journey. He was given the

assignment of taking the horses on an overland route. Pryor's small party lost the horses and had to set out by bullboats from a site at or near Pompeys Pillar.

The construction of a small visitor center in 1992 and subsequent operation of this facility has provided an opportunity to determine the needs of visitors through interaction with the public. Many of these comments have been addressed through the conceptual planning of the proposed action. Currently, the visitor center is open daily from 8:00 a.m. to 8:00 p.m. from Memorial Day weekend through Labor Day weekend. It is open daily from 9:00 a.m. to 5:00 p.m. after Labor Day weekend through the end of September. Interpretive programs have been developed, including the use of living history, exhibits, signs, tours and brochures. In addition, an environmental education program serves over 3,000 students annually.

Several surveys have been conducted at the site, with the most recent survey conducted during the summer of 2000 (refer to the Social section). A 1994 survey revealed that 70 percent of the respondents were first time visitors to the site, and about 7 percent of the respondents were from foreign countries. The survey indicated that of those surveyed, about one half of the annual visitation is from outside of Montana. These statistics indicate a strong national and international interest in this site and suggest a need to orientate new visitors to the site before they explore the area.

Pompeys Pillar attracts a variety of visitors, all with different expectations. Briefly described below are six different target audiences and an assessment of their needs at Pompeys Pillar. Plans for the future management and development consider some of the characteristics of potential users of the site. This information assists the BLM in designing facilities and interpretive materials to accommodate many user groups.

Six target market groups were identified as a result of a meeting ("charette") held in January 1993, and a visitor survey conducted on-site in the summer 1994. These target markets, which are groupings of visitors with similar purposes and characteristics, are described below.

Target Market 1 - East/West Route Tourists

The largest potential segment of users is likely to be comprised of travelers on I-94 who are traveling east and west to and from western destinations such as Yellowstone, Glacier, and other National Parks and forests in the region. This group is characterized as families traveling in personal vehicles during the summer months who are looking for entertainment experiences enhanced with educational value. Other segments of this market include foreign travelers of Asian and European origin, teachers seeking experiences to take back to the classroom, local residents bringing visiting family and friends to the site and shoulder season travelers, especially seniors.

This target market generally arrives with little knowledge of the site. Expectations of this group may include full service restroom facilities, a desire for food and visitor mementoes, "passport" stamps, room for recreational vehicle parking, and variety of interpretive media.

Target Market 2 - Tour Groups

This group of travelers is normally comprised of a high percentage of senior citizens or adults with similar interests who are looking for educational or interesting experiences along their tour route. These groups usually travel by motor coach or arrive independently as part of a convention. It may be important for the site to accommodate 30-50 people in a short period of time. The group may expect refreshments, retail opportunities and restrooms. This segment is traveling during the peak summer months but will also travel during spring and fall. Billings hosts over 100,000 convention or tour visitors each year.

Target Market 3 - History Destination Travelers

This user group is comprised of travelers who seek experiences at sites where there is historical significance associated with the site that offers some interpretation of events. This segment is content-oriented and is generally seeking the experience of being at the exact location where the Clark party passed. High quality informational publications, displays, and informed staff will be important to this group. Access to historical references and display of collections will be a priority. Pompeys Pillar offers such an experience because of the historical significance of the site. Recent focus of Travel Montana on historic sites in Montana and a growing interest in the Lewis & Clark Bicentennial commemoration will increase this market.

Target Market 4 - Local Recreation Users

Residents of the area use the site as a recreation area for day-use activities such as picnics, hunting, fishing, canoeing and watching wildlife. Pompeys Pillar has a long heritage of family outings, such as Fourth of July picnics. Picnic facilities, restrooms, a location near the river, and close proximity to Montana's densest population area make this a good spot for day- use. Potential for a watchable wildlife site is high.

Site capabilities are high for opportunities to hunt whitetail deer, waterfowl, and upland birds. While adequate opportunities exist elsewhere to hunt deer and waterfowl, upland

bird hunting for pheasant and Hungarian partridge is dependant on gaining access.

Fishing opportunities on-site are marginal because of a limited fishery and because the Pompeys Pillar recreation site lies on the shallow side of the river. Catfish, ling, sauger, walleye and a few trout inhabit the river. Improving the fish habitat on this site would enhance opportunities for the physically challenged and others to fish.

Limited canoeing and rafting opportunities exist along this section of the Yellowstone River because few boating access sites exist. Retracing Captain Clark's journey on the river and stopping at Pompeys Pillar is reenacted each year during the Clark Day celebration in late July.

Opportunities to cross country ski exist during the winter. The terrain is flat and is not challenging; however, the site's close proximity to an urban population and opportunities to view wildlife may make up for the lack of challenging terrain or winter long snowpack.

Target Market 5 - Special Event and Festival Participants

The site may attract historical festivals, rendezvous and other special events that will result in use by those creating the event and event spectators. The festival commemorating the signature of Captain Clark is an annual event and is likely to grow. Opportunities and potential for other events is high.

Target Market 6 - School and Organized Youth Groups

This site attracts a large number of local and regional schools and organized youth groups because of its proximity to urban areas. School use is likely to increase which would also increase the shoulder season use. There is an emphasis on the Lewis and Clark curriculum in the schools and interest from the Native American schools. The combination of historical relevance and natural wildlife and environmental opportunities at the site makes it an excellent location for school or youth group visits.

Pompeys Pillar has benefitted from service work performed by groups visiting the site. Some projects have included sanding and treating the boardwalk, refurbishing benches, constructing bird houses and feeders, planting flowers, restoring damaged grass, site cleanup and constructing a trail.

The opportunity to view Clark's signature is a primary interpretive feature and focus of the site. Accessing the signature requires climbing over 100 stairs, which is limiting for some individuals. In order to provide this interpretive experience for all visitors, several alternatives would be offered. There is a replica of Clark's signature carved in sandstone in the existing visitor center. This replica would be available whenever the visitor center is open, and would be provided in the new interpretive center. In addition, an interpretive trail being developed at Pompeys Pillar would include a spotting scope focused on the actual signature. Visitors would be able to view the actual signature without climbing the stairs. These actions would be common to both alternatives.

Recreation Impacts from Alternative A - Alternative A would provide visitors an outstanding opportunity to relate to biologic, geologic and cultural features at the site through a meaningful interpretive program. Interpretive experiences would include a modest, but comprehensive, assortment of internal and external programs and exhibits. A potential feature of this alternative would be a video component which orients visitors to the site and could accommodate a large group at one time (approximately 70 visitors). As a result, visitors would be compelled to explore the site further. Indoor interpretive materials would have sufficient space to touch upon many fundamental aspects of interest, as detailed in the interpretive prospectus (BLM, 1998), without having to go outdoors. This would be especially valuable for those unable to fully explore outdoor points of interest, whether this might be due to a lack of time, inclement weather, or accessibility. Exploration of outdoor features would be encouraged and would enhance the visitors' experience. Alternative A would accommodate many of the needs of the various visitors and target markets expected to visit the site.

Retention of the current visitor center and vault toilets, while providing services closer to the pillar escarpment, may detract from the experience of visitors, because these facilities are located within the historic setting. The need for these facilities is minimal with the development of the new interpretive center just a short distance away.

The ability to only staff the interpretive center from May 1 through October would limit potential opportunities for visitors to fully enjoy and appreciate the site during the off-season, which is about half the year. It would also limit the potential to actively manage visitation during the off-season and would limit the opportunity to prevent damage to site resources. In addition, walk-in traffic may be allowed during the off-season. This would require visitors to park their vehicles at a parking area along the southern boundary of the site.

The construction of a new road and parking area would occur simultaneously with the construction of the interpretive center. This would benefit the visitor by providing the improvements at the same time.

Recreation Impacts from Alternative B - A smaller interpretive center would provide most visitors with a satisfactory opportunity to relate to biologic, geologic and cultural features at the site through a meaningful interpretive program. Space constraints inside the interpretive center would necessitate locating all but the most critical exhibits, outdoors. This may limit the interpretive experience for those unable to fully explore outdoor points of interest, due to a lack of time, inclement weather, or accessibility. This alternative may limit the tour group market segment, who are on a very limited time frame and would not have the benefit of an audio-visual orientation program. Upon full implementation of Alternative B, it is possible to provide an addition that may include an audio-visual orientation program, therefore making the impacts similar to Alternative A. Full exploration of outdoor features would be encouraged and would be essential to grasp an adequate understanding and relevance of the site. Visitors may not have the opportunity to learn about all of the relevant themes addressed in the interpretive prospectus because of the dispersed presentation of interpretive materials required under this alternative.

Removal of the existing visitor center, vault toilets, parking area and other improvements in the Historic Zone would enhance the visitors enjoyment and appreciation of the area, by more nearly replicating the historic setting. The need for these facilities is minimal with the development of the new interpretive center just a short distance away.

The opportunity to staff the facility yearlong would significantly enhance the visitor's experience at this site and would provide a much needed stronger management presence and greatly reduce the potential for damage to site resources.

The new road and parking area would be a phased-in component for Alternative B. In the short term, if the funds for the road and parking area were not available, the existing road and parking area would have to be used by visitors. This would diminish the visitors' experience. However, in the long term the impacts would be eliminated.

Environmental Education/Interpretation

Affected Environment - The 1996 Pompeys Pillar EA/Amendment did not discuss interpretation or environmental education in detail, and instead deferred these to subsequent activity plans. The document did identify critical interpretive/educational components of the site in its relevance and importance criteria. An Interpretive Prospectus was subsequently developed (BLM, 1998). Pompeys Pillar has significant potential for interpretive and environmental education opportunities because of its unique heritage, the diversity of species that inhabit the site, and the cultural and historical features.

Interest in Lewis and Clark has increased tremendously with the approaching Bicentennial of the Lewis and Clark Expedition. Since 1996, media attention toward the L&C Bicentennial has grown, which has resulted in increased visitation to Lewis and Clark sites. These demands are placing increased emphasis on the number and quality of interpretive and educational programs that need to be offered at the site.

The 1996 Pompeys Pillar EA/Amendment stated that the new interpretive center would offer both indoor and outdoor interpretive experiences on site and serve as the headquarters for special events, festivals and outreach activities. The site lends itself well to a combination of indoor and outdoor interpretive exhibits. While indoor exhibits offer alternatives for inclement weather, outdoor exhibits provide the opportunity to "experience history where it actually happened." Some subject experts suggest that there is no more powerful interpretive tool than to interpret history in the actual location where it happened. Pompeys Pillar offers this opportunity. Interpreting a riparian area or native prairie vegetation is much more immediate and genuine than viewing the same riparian area or native prairie vegetation on an interpretive panel or through a window.

The environmental education program for the two alternatives would not differ significantly. Quality environmental education programs focus on hands-on, interactive learning. A major portion of the environmental education activities at Pompeys Pillar have been and need to be outdoor oriented. With the exception of the theater in the larger facility for orientation purposes, the alternatives would be otherwise relatively equal in their ability to provide environmental education programs. Visitor services would be interspersed with the facilities for both alternatives.

There would be some general differences in the Interpretive program between the two alternatives which are discussed in the impacts section.

Interpretation Impacts from Alternative A - The 11,000 -12,500 square foot interpretive center in this alternative would offer more area for indoor interpretive exhibits. The exhibits would go beyond the central theme of "Clark on the Yellowstone" to include some of the sub-themes of the site such as railroads, steamboats, a focus on General Custer and the military, etc., as provided for in the interpretive prospectus (1998). A larger indoor interpretive space could offer the visitor more interpretation/education without having to go outside. A larger facility has the potential for an orientation theater and/or multi-purpose room which would accommodate very large groups at one time.

Interpretation Impacts from Alternative B - The 5,700 square foot interpretive center would focus the indoor

interpretive efforts primarily on the story of Clark on the Yellowstone. The key and unique interpretive focus of the Pillar is the signature itself. Providing visitors with the opportunity to view the signature would be one of the primary themes. Additional interpretive themes would include other aspects of the Lewis and Clark Expedition, local and regional history and American Indians of the region, specifically the Crow.

With the limited space for indoor interpretive exhibits in this alternative, exhibits and interpretation would be emphasized outside. This option would have the additional advantage of encouraging visitors to learn throughout the site (indoor/outdoor), thereby lending a more powerful message to the interpretive media. Should all phases of this alternative be implemented, an orientation theater/multipurpose room or other facilities could be added, thereby enhancing the visitor experience.

Visual/Scenic Values

Affected Environment - The scenic values inventoried at Pompeys Pillar have not changed significantly since the 1996 Pompeys Pillar EA/Amendment. This analysis does provide updated, more detailed information regarding the visual contrast rating that was recently completed for the preferred alternative. That information is discussed as part of this analysis.

The 1996 Pompeys Pillar EA/Amendment identified three viewsheds important to maintaining the historical setting of Pompeys Pillar: (1) the area immediately to the north, across the Yellowstone River, as viewed from the top of the rock; (2) the view of the rock from the crest of the Highway 312 interchange to the entrance and (3) the area seen by visitors from the boardwalk. The two Key Observation Points applicable to the alternatives, and which the contrast rating is based on, are the view of the rock from the crest of the interchange and the area seen by visitors from the boardwalk at Clark's signature.

The 1996 Pompeys Pillar EA/Amendment determined through the visual resource inventory procedures, that the site is to be managed under two visual resource management objectives. The National Historic Landmark portion of the Pillar will be managed as a Visual Resource Management Class II management objective. The objective of this class is to retain the existing character of the landscape. The level of change to the existing landscape should be low. Management activities may be seen, but not attract the attention of the casual observer.

The remainder of the area falls within Class III management objective. The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract the attention but should not dominate the view of the casual observer. Scenic quality outside the National Historic Landmark boundary was rated low due to the farming and visual sensitivity rated moderate. The 1996 Pompeys Pillar EA/Amendment also states that a visual corridor will be maintained from the interchange to the National Historic Landmark. Activities within the corridor will be managed so that the NHL dominates the view of visitors as they approach the site.

Since the 1996 document, more refined locations and initial design concepts have developed regarding the interpretive center. This more specific information provides an opportunity to conduct a visual contrast rating. In addition, during public scoping, commenters suggested protecting the viewshed and scenic qualities of the site and to ensure the center does not dominate the view from the Pillar.

Visual/Scenic Impacts from Alternative A - A Visual Contrast Rating was completed using visual simulation techniques. The contrast rating was based on a schematic for the preferred alternative. It was determined that the contrast rating results would be similar for both structures, with the noted exception of the scale of the building.

The analysis determined that during peak visitor use (May to September), the interpretive center, parking area and day-use area would not likely be visible from the signature platform because the cottonwood trees would obscure the view. However, the new entrance road would be visible.

From the observation point from the interchange, the new facilities, given the design guidelines provided in Chapter Two, would result in short-term, temporary moderate contrast impacts until the landscaping/vegetation fully matures.

The 1996 Pompeys Pillar EA/Amendment states that a visual corridor would be maintained from the interchange to the Pillar. Activities within the corridor would be managed so that the Pillar dominates the view of visitors as they approach the site. The proposed location of the entrance road was analyzed through the VRM contrast rating procedures. Due to the motion of the vehicles and the location of the road within the view from the observation point at the interchange, the road presents a strong contrast in the landscape. The contrast of the road could be mitigated by providing vegetative screening with native plants along the road corridor and/or using road surface materials that blend with the landscape. These mitigation measures would be refined and adjusted as the project moves through the design phase.

Alternative A would retain the existing facility. The current Visitor Center presents a moderate contrast from the

overchange Key Observation Point and the roof is highly visible from this viewpoint and would need modification. The existing parking area would also be highly visible from the Key Observation Point at the Signature and would be very difficult to mitigate.

Visual/Scenic Impacts from Alternative B - The impacts would be similar to Alternative A. However, this alternative would remove the existing facilities, thereby eliminating the visual/scenic impacts of the building being in the historic zone. There would be no visual impacts by the location of the day-use area in Alternative B as the cottonwoods obscure the view from the key observation point on the boardwalk.

Social/Demographics

Affected Environment - Pompeys Pillar is located in Yellowstone County about 30 miles east of Billings on I-94. Billings and Yellowstone County had 2000 populations of 89,847 and 129,352, respectively, which represent increases of 11 and 14 percent since 1990. There are several smaller communities in Yellowstone County located within a thirty mile radius of the Pillar. These communities all had populations of less than 600 in 2000. These communities include Custer (population 145), Shepherd (193), Worden (506), Ballentine (346) and Huntley (411). There is a very small unincorporated community, Pompeys Pillar, located near the monument. In 2000, the population of Yellowstone County was 93 percent white and 3 percent American Indian/Alaska Native. Seventy-five percent of the population was age 18 years and over, and this percentage is expected to increase in the future. The population of Yellowstone County is expected to increase to 143,500 by 2010 and to 166,000 by 2025. The 1997 poverty rate for Yellowstone County was 12.1 percent compared to a state rate of 15.5 percent. (All census data is from the MT Department of Commerce, 2001).

The Crow Indian Reservation is located south of the Pillar and attracts considerable tourism to the area. The Northern Cheyenne Reservation is located southeast of the Pillar, adjacent to the Crow Reservation. The population of the Crow Reservation was 6,894 in 2000, an increase of 8 percent since 1990. The population of the Northern Cheyenne Reservation was 4,470 in 2000, an increase of 14 percent since 1990. The community of Hardin, which is located adjacent to the Crow Reservation, had a 2000 population of 3,384, which was an increase of 15 percent since 1990. The 2000 populations of the counties in which the two Reservations are located, Big Horn and Rosebud, are 12,671 and 9,383 respectively. The American Indian/Alaska Native populations of these counties were 7,560 (60%) for Big Horn County and 3041 (32%) for Rosebud County. The 1997 poverty rates were 29.6 percent for Big Horn County and 19.9 percent for Rosebud County, compared to the state rate of 15.5 percent. (All census data is from the MT Department of Commerce, 2001).

During scoping, ideas and concerns were identified by those who participated in the effort. Many of these concerns were related to the rest stop and will not be discussed because the rest stop has been eliminated from consideration. Of the letters and comment forms that discussed the new interpretive center, almost all supported the center. However, many people qualified their support by indicating it should be designed to maintain the visual qualities, naturalness, historical aspects and tranquility of the area and to emphasize the educational value of the site. Commenters were also concerned about commercializing the area, the size of the interpretive center, and keeping development away from the Pillar and out of the floodplain and riparian areas. Several comments suggested that the interpretive center should be built away from the Pillar itself. A few commenters mentioned concern for school children and traffic/safety. Comments on the importance of the natural resources of the area gathered at the scoping meetings included: the rural setting, the naturalness of the area, wildlife, clear air, openness of the area, peace and quiet, scenic qualities, and the river. Comments on the importance of the cultural/historic resources also gathered at the scoping meetings included the connection to Lewis & Clark, seeing the area as a focal point for Yellowstone Valley history, the petroglyths, and the long association with Native Americans. Issues and concerns included: desecrating the site, wildlife habitat/riparian protection, maintaining visitor control to preserve vegetation, and concern about wetlands, air pollution, sanitation and traffic. Ideas on how the facilities should be designed included: facilities should not detract from the natural setting, the interpretive center structure should be compatible with the setting, use natural building materials to blend in with the surroundings, and the center should not overwhelm but should complement the Pillar. Many of the ideas discussed at the scoping meetings revolved around the placement of the visitor facilities, how to plan for the bicentennial and afterwards, and suggestions for recreation and interpretation.

In 2000, the Institute of Tourism and Recreation Research at the University of Montana completed a visitor survey at Pompeys Pillar (ITRR, 2001). The survey found that 22 percent of the visitors were from Montana. The non-Montana visitors came from a variety of locations, mostly from within the United States. The median distance from home was 800 miles and the median trip length was 9 nights. Forty-four percent planned their visit on the day they visited; 16 percent planned their visit over 6 months in advance. Eighty-four percent of the visitors were on their first visit to the Pillar. Just over half of the visitors stayed under one hour; none stayed more than 4 hours. The most typical group type was a family (44%), or couple (27%)

with an average group size of just over 3. Fewer than 30 percent of the groups included a child. According to the respondents, the most important reasons to visit the site were to see/be where Lewis & Clark were, to learn about Lewis & Clark, and to recreate and/or relax. For most visitors, the historical association of the site with Lewis & Clark's expedition was an important aspect of the groups' decision to visit. Almost 60 percent of those surveyed did one of the following: read Undaunted Courage, read the L&C journals, read other L&C books or watched the documentary on the Corps of Discovery. The specific reasons given by visitors who were motivated by elements of the Lewis & Clark history to visit the site included: general interest in the expedition and history of Lewis & Clark, have wanted to see it for a long time, Sacagawea, and the signature on the rock.

Over ninety percent of the respondents were satisfied or very satisfied on their visit with the access to historical features, condition of natural features, maintenance of the facilities, and cleanliness of the area. When asked which elements were most important for visitor satisfaction at this site, the quality of the Lewis & Clark information was clearly rated as most important followed by cleanliness of the area, condition of the natural features and access to historical features. Eighty percent of the respondents indicated they would make no changes or improvements at the site. Responses from the twenty percent that would make changes or improvements included: more restrooms; more/better information, more detail, maps, interpretive signs; and leave non-commercial/no more development. Information from an earlier visitor survey (BLM and PPHA, 1994) offered support for some of this information. The 1994 survey respondents indicated they liked the view, the signature and historical significance of the area. Activities participated in by at least 45 percent of the respondents included climbing the Pillar (67%), viewing scenery (66%), and visiting the Visitor Center (46%). Respondents were asked about satisfaction with different aspects of the area and their visit. Sixty percent rated the condition of the natural resources as excellent. Fifty percent rated the appropriateness of the facilities and development as excellent. Forty percent rated the variety of activities as excellent. Other facilities/activities respondents would like to see at the site included: historical displays (42%), self-guided tours (40%), and interpretive trails (33%).

Social Impacts from Alternative A - Local residents mentioned many concerns but most of them were associated with the rest area, which has been dropped from consideration. Concerns about the potential for flooding and ice jams are discussed in the section on Floodplains/Water Quality. Traffic safety issues are addressed under the Assumptions section of this chapter.

With a larger visitor center, this alternative may focus the visitor less clearly on the natural, visual, outdoor aspects of the setting, which may not be consistent with what many of the commenters emphasized during scoping. Refer also to the sections on impacts to Recreation Use, Visual/Scenic Values, Interpretation/Environmental Education, Cultural and Economics for Alternative A.

Social Impacts from Alternative B - Local residents mentioned many concerns but most of them were associated with the Rest Stop, which has been dropped from consideration. Concerns about the potential for flooding and ice jams are discussed in the section on Floodplains/Water Quality. Traffic safety issues are addressed under the Assumptions section of this chapter.

This alternative may focus the visitor more clearly on the natural, visual, outdoor aspects of the setting, and the Clark journey, which is more consistent with what many of the commenters emphasized during scoping. Refer also to the sections on impacts to Recreation Use, Visual/Scenic Values, Interpretation/Environmental Education, Cultural and Economics for Alternative B

Economics

Affected Environment - The economic conditions described in the 1996 Amendment still exist. To summarize, the economy of Billings and Yellowstone County is diversified and stable, experiencing slow steady growth. Along with retail, manufacturing, medical, service, and agricultural industries, the area is also a major tourist service center. The population of Billings and Yellowstone County is the primary change since the publication of the 1996 Amendment. Year 2000 Census data show the population of Billings to be 89,847 and Yellowstone County to be 129,352.

The economic analysis in the 1996 Amendment focused on recreation and agriculture, the two activities most likely to be affected by management decisions. The agriculture analysis focused on farming activities currently occurring on about 200 acres within the ACEC. This analysis is generally still accurate, but types of crops, acreage per crop, and value per unit of production may be different.

For recreation, the 1996 Amendment focused on visitation trends at Pompeys Pillar through 1995. The Amendment also described trends in recreation in general and how those trends would likely affect visitation to Pompeys Pillar in the future. Estimates through 1995 showed that visitation had increased to about 42,000 visitors, up from about 9,900 visitors in 1989. The BLM estimates visitation from 1995 through 2000 to be:

Year	*Visitors*
1995	42,000
1996	43,000
1997	48,000
1998	58,000
1999	41,000
2000	39,000

Visitation in 2000 (39,000) is slightly lower than 1995 visitation (42,000). In the 1996 Amendment, the analysis estimated 1995 visitation contributed about $395,000 and 19 jobs to the area's economy. Because visitation is slightly lower in 2000 than 1995, the economic contribution of visitors to Pompeys Pillar is likely to be slightly lower. Some factors influencing some recent peaks in visitation could include popular L&C novels and documentaries, and the emphasis on L&C Bicentennial. Declines, particularly in 2000, could be attributed to higher gas prices and the recent fire season.

Economic Impacts from Alternative A - In the 1996 Amendment, the analysis based the economic impact analysis on potential visitation of about 250,000 visitors per year. Based on some additional studies potential visitation might be about 130,000 visitors per year by the year 2020, about half of the original estimate. Annual visitation of 130,000 is estimated to contribute about $1.6 million and 72 jobs annually to the Montana economy. This level of economic activity is probably optimistic. It assumes: (1) 75 percent of visitors are from out-of-state; and (2) some portion of this spending is due to visitors remaining in Montana for a longer period of time than if they had not stopped at Pompeys Pillar (i.e., the longer visitors remain in the state, the more money they are likely to spend).

This estimated economic activity does not include spending for construction, operation and maintenance of facilities. The 1996 analysis originally estimated construction of an 11,000-12,000 square foot facility would cost about $3 million and annual operation and maintenance costs would be about $300,000. New construction costs are estimated to be about $9.4 million and operations and maintenance costs to be about 8-10 percent of that, or $750,000 - $940,000 annually.

No change to existing management decisions would be made regarding farm operations; therefore, economic conditions for farming at Pompeys are not expected to change.

Economic Impacts from Alternative B - For economic impacts, the primary difference between Alternative B and Alternative A is that Alternative B envisions constructing a smaller facility, about 5,700 square feet (versus about 11,000 - 12,500 square feet under Alternative A). Though the facility is smaller, the annual visitation would still be estimated to be about 130,000 visitors. So, economic impacts would be similar to Alternative A. However, construction, operation and maintenance costs would be lower than Alternative A. Construction of a 5,700 square foot facility would be about $4 million and could increase to $9.4 million with the development of additional facilities such as interpretive trails, exhibits, a theater pod, etc. Annual operation and maintenance costs would be about $320,000 - $400,000 for the lower-cost scenario and $750,000 - $940,000 with the inclusion of the additional facilities.

There would be little economic impact associated with removing existing facilities as proposed in this alternative. Extending the season of use beyond the peak tourism season at the site may increase economic activity, but it would probably not be substantial unless visitation increased substantially in the off-peak seasons.

No change to existing management decisions would be made regarding farm operations; therefore, economic conditions for farming at Pompeys are not expected to change.

Floodplain and Water Quality (drinking or ground)

Affected Environment - The Pompeys Pillar property lies east and outside of any Yellowstone County Official Floodplain Maps. State and county regulations require licensed surveys and professional analysis be completed to determine the 100-year flood elevation and hydraulic calculations for velocities. Through assistance from the United States Geological Survey (USGS) and MT DNRC, a Floodplain Analysis and Delineation was completed. This study established the 100 and 500 year flood elevations, flood way delineations and volume quantities. Combining this information with a new topographic map showed the entire property, except for a narrow strip of land between the trees and the north field edge stretching from the Pillar to the north/south drainage return ditch, is under the 100-year flood elevation. The study also provided new information showing that the present log visitor building floor elevation is approximately 1 foot above the 100-year flood elevation and the vault toilet floors are at the 100-year flood elevation.

Construction and development activities will conform to all pertinent floodplain and environmental regulations. A description of how this project has or will comply with Executive Order 11988 on Floodplain Management is provided in Appendix 5. In addition, this project is being designed to comply with and be permitted by Yellowstone County Floodplain Regulations that are consistent with, and more stringent than, the National Flood Insurance Program and the Montana Floodway Management and Regulation Act.

The proposed new building site was evaluated by subject experts. This proposed project may require a Section 404 permit from the Corps of Engineers. The proposed development location is situated on one of the higher areas within the floodplain. Subsequently, limited fill placement would be required. Revegetation and landscaping would be completed around structures to prevent soil erosion, provide flood protection and provide wildlife habitat.

The Yellowstone River is prone to ice jams forming and damming the river flow. Typically, where major damming and resultant ice flow damages occur, the cottonwood tree trunks lose chunks of bark as high as 6 to 10 feet up. The edges heal over, leaving a patch of white barkless tree trunk visible. An investigation of the Pillar's 100 plus year old cottonwood tree stands show no ice flow damage. Channel configurations, the rock Pillar and the cottonwood tree stand serve as a natural mechanism to protect this portion of the river from ice jams.

Water provided by the BLM must conform to the provisions of the Safe Drinking Water Act of 1974. The act establishes protective measures for culinary water systems by providing standards which regulate allowable contaminant levels. Requirements include monitoring provisions and sampling frequencies, generally at least one sample per month, for all water systems the BLM manages, including recreation sites. Under all the alternatives, the interpretive center, and any other facilities that offer running water, must comply with the Act. This includes the provision for periodic testing to assure water quality, thereby, eliminating any potential impacts.

Waste Water Treatment - Waste water treatment systems will comply with MT DEQ regulations. Consultation with the Yellowstone County sanitarian and Montana DEQ has been ongoing regarding waste water treatment system feasibility in this floodplain. Montana DEQ regulations require the two best sites on the property be located and tested in the preliminary design planning stage. This is to assure the secondary site is already approved should the primary site fail. These sites will undergo extensive soil and groundwater testing to assure proper design to meet the more stringent criteria for building in a floodplain. This may include conventional and alternative systems such as mounds, fills, subsurface, and wetlands.

Floodplain/Water Quality Impacts from Alternative A - Even though the entire area is in the 100-year floodplain, the proposed development location for the building is on a slightly higher area, which requires limited fill placement. Subsequently, there is no increase to flood water levels and velocities, thereby not impacting adjoining lands. The road would be constructed to normal contours of the topography, and not elevated. As a result, there would not be an increase to flood water levels and velocities. Based on the design and management common for the alternatives, there are no other impacts to floodplain or water quality, as all development would be done in conformance with all applicable design regulations and laws.

Alternative A would retain the existing visitor center and facilities. These facilities are not consistent with the direction provided in the floodplain regulations. Potential impacts would include closures of the facilities during high flood times and potential damage to the existing facilities.

Floodplain/Water Quality Impacts from Alternative B - Under Alternative B, the existing facilities would be removed. The removal of these facilities would avoid the potential impacts during a flood event associated with leaving the facilities. Removal of existing facilities would also bring the area into compliance. Other impacts would be similar to Alternative A.

Irreversible/Irretrievable Impacts

Once established, facilities are likely to be maintained into the foreseeable future. The farmland and small amount of vegetation displaced by facilities and trails would be an irretrievable loss. Although implementation of either alternative would provide information about the natural, historic and cultural setting, it would change the character of and increase use on the site.

Adverse Effects Which Cannot be Avoided

Construction of facilities would adversely affect soils and vegetation. These impacts could not be avoided but would be minimized through proper construction techniques. Facilities would concentrate public use and effects of public use such as trash and vandalism in this area. The effects could be reduced but not totally eliminated through effective visitor management.

Cumulative Impacts

The following effects would be in addition to the cumulative effects discussed in the 1996 Pompeys Pillar EA/ Amendment and the effects discussed in the Pompeys Pillar ISTEA EA. (BLM, 1999)

The following activity, if implemented, would add a measurable cumulative effect:

-The construction of a grain handling facility directly east of the entrance to Pompeys Pillar and only 3/4 miles from the Pillar itself would include four concrete silos, each about 42 feet in diameter and 150 feet tall. The project would impact the visual aesthetics from the Pillar, which currently allows visitors to experience much of the same view Clark and his party had in 1806.

The following activities could add a measurable cumulative effect to Alternatives A and B:

- If the grain elevator is constructed with its resulting increase in truck traffic, some westbound visitors may decide to take Route 312 into Billings rather than make a left hand turn to return to I-94. This could increase traffic in an area where the population is growing.

- The reconstruction of the Highway 312 overpass off I-94, which leads to the Pillar, would begin in fall of 2001 and last for about 1 1/2 years. This work should be completed before the Bicentennial but may occur concurrently with the construction of the new Interpretive Center and road and grain handling facility. If these projects occur concurrently, this may be preferable to a longer-term impact from extended construction periods. If these construction activities continued into the peak Bicentennial seasons, the visitors' experience would be diminished at a very important time.

The following activities would not add a measurable cumulative effect to either Alternatives A or B:

- The repair of the Bundy Bridge, which crosses the Yellowstone River immediately to the north and west of the Pillar area, should be completed prior to the beginning of construction on the Interpretive Center.

The following activities have been included in the new projections for visitation to the Pillar:

- The increasing population in Yellowstone, Big Horn and Rosebud counties, would be a part of the projected increase in tourism and may include an increased interest by local Indian Tribes.

- The nationwide increasing popularity of cultural tourism which may help extend the effects of the Bicentennial beyond the anniversary years.

CHAPTER 4
PUBLIC INVOLVEMENT

SUMMARY OF PUBLIC INVOLVEMENT

In August 1996, the Bureau of Land Management approved an amendment to the Billings Resource Management Plan for the Pompeys Pillar EA. Public participation was a significant factor in developing that amendment, and BLM efforts to involve the public are highlighted in the decision record for the amendment as well as in Appendix 9 of the actual amendment environmental analysis.

Part of the 1996 amendment was the decision to build a moderate sized interpretive center of approximately 12,500 square feet east of the actual Pillar and just south of the riparian zone. This was based on visitation projections of approximately 250,000 annually and a construction cost estimate of $3 million. This preliminary cost estimate was made using figures from the Lewis and Clark Interpretive Center in Great Falls. Our plan was for a building about half the size of the Great Falls facility so 50 percent of the cost of that center was used for preliminary planning. However, when more detailed aspects of construction at the site were investigated, BLM learned that infrastructure needs at Pompeys Pillar would triple costs.

At about the same time, BLM was presented with the possibility of co-locating the new interpretive center with a Montana Department of Transportation highway rest area, a concept that offered the potential to share some of the infrastructure costs with the State. BLM felt the only responsible course of action was to study the co-location scenario through this environmental assessment. This environmental assessment also allowed BLM to again formally involve the public in the planning for Pompeys Pillar and to review the 1996 decisions as they relate to a new interpretive center.

Public scoping for this EA was initiated on November 1999 through filing of a Notice of Intent to Prepare an Environmental Assessment on construction of an interpretive center and other facilities at Pompeys Pillar National Historic Landmark. The notice was published in the Federal Register on November 26, 1999. The Notice of Intent did not contain a specific agency proposed action, but did identify that the EA would analyze the possibility of a Montana Department of Transportation highway rest area at the site.

Two public scoping meetings to gather comments on the scope of the environmental analysis for the project were held on January 4 and January 5, 2000. A summary of the scoping comments, gathered from the meetings and written comments, is provided below.

SCOPING SUMMARY

Two public scoping meetings to gather comments on the scope of the environmental analysis for the project were held of January 4 and January 5, 2000. Over 60 people attending these meetings. Many of the comments made at these meetings were related to the rest stop and will not be discussed because the rest stop was eliminated from consideration. Comments collected at the scoping meetings fell into three categories: the special features of the area, issues and concerns and ideas. Comments on the importance of the natural resources of the area gathered at the scoping meetings included: the rural setting, the naturalness of the area, wildlife, clear air, openness of the area, peace and quiet, scenic qualities, and the River. Comments on the importance of the cultural/historic resources also gathered at the scoping meetings included the connection to Lewis & Clark, seeing the area as a focal point for Yellowstone Valley history, the petroglyths, and the long association with Native Americans. Issues and concerns included: desecrating the site, wildlife habitat/riparian protection, maintaining visitor control to preserve vegetation, and concern about wetlands, air pollution, sanitation and traffic. Ideas on how the facilities should be designed included: facilities should not detract from the natural setting, the interpretive center structure should be compatible with the setting, no building over two stories, use natural building materials to blend in with the surroundings, and the interpretive center should not overwhelm but should compliment the Pillar. Many of the ideas discussed at the scoping meeting revolved around the placement of the visitor facilities, how to plan for the bicentennial and afterwards, and suggestions for recreation and interpretation.

Over fifty letters and comment forms were also received during the scoping period. Of the letters and comment forms that discussed the new interpretive center, almost all supported the center. However, many people qualified their support by indicating it should be designed to maintain the visual qualities, naturalness, historical aspects and tranquility of the area and to emphasize the educational value of the site. Commenters were also concerned about commercializing the area, the size of the interpretive center, and keeping development away from the Pillar and out of the

river, floodplain and riparian areas. Several comments suggested that the center should be built away from the Pillar itself. A few commenters mentioned concern for school children and traffic/safety.

AGENCY AND TRIBAL COORDINATION

Agency and Tribal coordination have been ongoing since the initiation of this analysis. Agencies were contacted by letter at the start of this project in an effort to inform and collect information pertinent to the analysis. Agency briefings regarding this analysis were conducted on May 22, 2001, in an effort to get critical feedback and information from agencies. Tribal consultation has also been ongoing. Most recently, the BLM consulted with the Crow Tribe in January 2001. The BLM provided written information and additional outreach to the Crow and Northern Cheyenne Tribes regarding this analysis and the preferred alternative in May 2001.

APPENDIX 1
LIST OF APPLICABLE REGULATORY REQUIREMENTS, LICENSES AND PERMITS

Following is a brief description of the applicable regulatory and legal requirements for this EA. Refer to Chapter Three for more detailed information on how the BLM has complied with these regulations and laws.

Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d)
This Act provides for the protection of bald and golden eagles. Also protected are any eagle parts, nests or eggs.

Endangered Species Act of 1973, as Amended
This act provides for the protection and conservation of threatened and endangered species.

Fish and Wildlife Coordination Act (16 U.S.C. 661-666c)
This act authorizes the Secretary of the Interior to: (1) provide assistance to, and cooperate with, Federal, State and public or private agencies, and organizations in the development, protection, rearing and stocking of all species of wildlife resources, thereof, and their habitat. The act has provisions for public shooting and fishing areas and public access. (2) Wildlife surveys of public domain, and (3) accepting donation of land and contributions of funds in furtherance of the purposes of the Act.

Migratory Bird Treaty Act and Executive Order 13186
The Migratory Bird Treaty Act of 1918 prohibits the attempt or actual pursuit, hunt, capture, or kill of any migratory bird, or any part, nest, egg, or products without proper authority such as a legal hunting license or special permit.

Protection of Wetlands (Executive Order 11990)
Management considerations must comply with Executive Order 11990, Protection of Wetlands, which requires federal agencies to minimize the destruction, loss, or degradation of wetlands while preserving and enhancing their natural and beneficial values on federal property.

American Indian Religious Freedom Act of 1978
This act declares that it is the policy of the United States to protect and preserve for the American Indian the inherent right of freedom to believe, express, and exercise traditional religions, including access to religious sites, use and possession of sacred objects, and freedom to worship through ceremonials and traditional rites. The act directs federal agencies to evaluate their policies and procedures to determine if changes are needed to ensure that such rights and freedoms are not disrupted by agency practices.

Archeological Resources Protection Act (ARPA) of 1979
This act imposes civil penalties for the unauthorized excavation, removal, damage, alteration or defacement of archeological resources.

Environmental Justice (Executive Order 12898)
Federal agencies are required to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low income populations.

Historic Sites Act of 1935
This act directs preservation of historic sites, buildings and objects of national significance for the use and benefit of the public. The act established the basis for National Historic Landmarks program.

Indian Sacred Sites (Executive Order 13007)
This order directs federal agencies to accommodate access to and ceremonial use of Native American sacred sites by Native religious practitioners, to avoid adverse effects to the physical integrity of sacred sites, and, where appropriate, to maintain the confidentiality of sacred sites.

National Historic Preservation Act (NHPA) of 1966, as amended
This act directs federal agencies to take into account historic and archaeological remains during the planning and implementation of federal undertakings (36 CFR 800 and 36 CFR 60). The act requires identification of historic properties during the planning phases of projects, and it provides guidelines for the assessment of scientific and social significance of historic properties, and for the treatment of affected historic properties. The Act is currently the basic federal law for the identification, designation and protection of National Historic Landmarks.

Native American Grave and Repatriation Act of 1990 (NAGPRA)
NAGPRA provides recognition of Native American tribes and native Hawaiian organizations as owners of human remains, funerary and sacred objects, and objects of cultural patrimony.

Section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431)
This act, more commonly known as the Antiquities Act of 1906, protects historic or prehistoric remains or any object of antiquity on federal lands, including both cultural and paleontological remains. The act imposes criminal penalties for unauthorized destruction or appropriation of antiquities. Fifty-one acres, including the pillar land form and lands along the cottonwood gallery, were declared a National Monument by President Clinton on January 17, 2001, under the authority of the Antiquities Act.

Clean Air Act
Under the Clean Air Act, the BLM is responsible for assuring that all its activities comply with local, state, and federal air quality laws, regulations, and standards.

Clean Water Act
The Clean Water Act (CWA) requires that all Resource Management Plans be consistent with state water quality standards and that the BLM provide for state review of the BLM plans and activities.

Floodplain Management (Executive Order 11988)
Any development by the BLM in a floodplain is affected by Executive Order 11988. EO 11988 was enacted to "avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative."

Montana Floodplain and Floodway Management Act (76-5-101 - 406,MCA)
Land use regulations defining the terms, regulations and administrative and enforcement procedures for determining and governing activities within or near the state's 100-year floodplain. This Act is in compliance with and is more stringent than the National Flood Insurance Program (44CFR 59-79).

Yellowstone County Floodplain Regulations
Promotes the public health, safety, and general welfare, to minimize flood losses in areas subject to flood hazards, and to promote wise use of the floodplain. These regulations and administrative and enforcement procedures are in compliance with and are more stringent than the Montana Floodplain and Floodway Management Act. All floodplain activities performed by the BLM and its contractors will be permitted by and in compliance with these regulations.

Federal Noxious Weed Act of 1974, as amended by Sec. 15 - Management of Undesirable Plants on Federal Lands, 1990.
This act authorizes the Secretary "to cooperate with other federal and state agencies, and others in carrying out operations or measures to eradicate, suppress, control, prevent or retard the spread of any noxious weed..."

Americans with Disabilities Act Accessibility Guidelines (ADAAG)
In September, 1993, the DOI issued a recommendation that these guidelines be used when implementing the ABA, since they are the most current and most stringent guidelines.

Architectural Barriers Act (ABA), 1968
This act, passed in 1968, requires that all buildings and facilities constructed in whole or in part by federal funds must be accessible to and usable by physically disabled persons.

Section 504, Rehabilitation Act of 1973, as amended
This Act states that all Federal programs, activities and services must be accessible to disabled visitors, including those with physical, hearing, visual and learning impairments.

Uniform Federal Accessibility Standards (UFAS)
These are the official standards for implementing the ABA.

Preliminary List of Potential Permits or Approvals Required

3A Authorization/ *124SPA* - Depending on project scope the proposed project would need to comply with the provisions of both ***Water Quality*** for *Section* 3 *(a)* authorizations under 75-5-401 (2) M.C.A. and ***Stream Protection*** under (87-5-501 through 509 M.C.A., inclusive).

A 3A Authorization is required by the DEQ, Planning, Prevention & Assistance Division for unavoidable short-term violations of state surface water quality standards. The 3A requirement may be waived by MT FWP in the 124SPA approval process.

A *124SPA* Stream Protection Permit is required by the MT FWP for work on the bed or banks of the river (typically rip-rap placement, access ramp installation, etc.). Applicability is questionable given the reduced project scope, but the process should be followed in the joint application. This permit is applicable to public agencies; instead of a 310 permit (Montana Natural Streambed and Land Preservation Act, Local Conservation District) that applies to private agencies.

All work would be in accordance with the *Water Quality Act of* 1987 (P .L. 100-4), as amended.

***Section* 402 Permit** -This proposed project may require a *Clean Water Act* (33 U.S.C. 1251- 1376) -*Section* 402/ Montana Pollutant Discharge Elimination System (MPDES) Permit from the DEQ Permitting and Compliance Division. This is for discharges to ground or surface waters, including dewatering water.

***Section* 404 Permit** -A *Clean Water Act* (33 U.S.C. 1251 - 1376) -*Section* 404 permit from the COE would be required for placing fill in wetlands or for the discharge of dredged or fill material associated with construction. The COE would determine if proposed project qualifies for a Nationwide permit under the provisions of *33 CFR 330.*

Public Water and Waste Water System Approval. DEQ. For the water and wastewater systems. Yellowstone County sanitarian will defer wastewater system approval to DEQ but should be copied records.

Non-degradation of Ground Water, ARM 17.30, DEQ. For the septic system. This will be included as part of the general design submittal to DEQ.

Water well development requires a ***Water Right Permit to Appropriate Water*** and eventual ***Certificate of Water Right***, DNRC. For a well yielding greater than 35 gpm.

Source Water Protection Plan. DEQ. For the public water supply well. Detailed plan documenting potential pollution pathways and modeling after well construction.

Ground Water Under the Direct Influence of Surface Water (GWUDISW) Review. DEQ. For the water supply well. Standard review with well/water system design approval.

Open Cut Mine Permit. DEQ. For the potential on-site materials pit if greater than 10,000 cubic yards.

FloodPlain Development Permit. DNRC/Yellowstone County. For building within the 100 year floodplain. Typically administered by the local floodplain administrator. Current contact is Rick Bondy, DNRC. Yellowstone County Floodplain Administrator is James L. Kraft, P.O. Box35004, Billings, MT 59107.

Storm Water Discharge Permit. DEQ. Required if there are more than 5 acres of construction disturbed area or more than 1 acre if within 100 feet of state waters. For potential discharge of storm water to state waters.

Comply with ***ADA, UBC, UPC, OSHA***, *etc.*, A/E and construction contractor responsibility.

Comply with ***Uniform Fire Code***. A/E responsibility. Local/State fire control jurisdiction.

Road Approach Construction requires a ***Highway Approach Permit*** from MDT .

Significant Land Disturbance requires Approval of a ***Weed Management Plan***. Yellowstone County Weed Control Board.

Cultural and Historical Resource Approval. State Historical Preservation Office.

APPENDIX 2
U.S. FISH AND WILDLIFE SERVICE LETTER OF CONCURRENCE, 1996

United States Department of the Interior

FISH AND WILDLIFE SERVICE

ECOLGICAL SERVICES
100 N PARK, SUITE 320
HELENA MT 59601

M.02 (I)

June 12, 1996

MEMORANDUM

To: Area Manager, Billings Resource Area, BLM, Billings, MT

From: for Field Supervisor, Montana Field Office, Helena, MT
Subject: Biological Assessment/Evaluation for Pompeys Pillar EA

Based on information contained in the Pompeys Pillar, Environmental Assessment/Amendment, we concur in your determination that the preferred management alternative is not likely to adversely affect the endangered bald eagle (Haliaeetus leucocephalus), peregrine falcon (Falco peregrinus), black-footed ferret (Mustela nigripes) or pallid sturgeon (Scaphirhynchus albus).

Your efforts to meet our joint responsibilities under the Endangered Species Act of 1973 as amended, are appreciated.

DMC

cc: Suboffice Coordinator, USFWS, Ecological Services (Billings, MT)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
100 NORTH PARK, SUITE 320
HELENA MT 59601

IN REPLY REFER TO:

95 SEP 22 AM 9

MONTANA STATE OFFICE
BILLINGS, MONTANA

RECEIVED
SEP 25 1995

AM
SUPV LUS
ARCH
REC PLANNER
REALTY SPEC
SUPV NRS
NAT RES SPEC
RANGE CON
RANGE LMS
WILD BIOLOGIST
WILD HORSE
ADM ASST
AUTOMATION CLK
RANGER
READING FILE

ES-61130-Billings

September 20, 1995

MEMORANDUM

To: Area Manager, Bureau of Land Management, Billings Resource Area, Billings, MT

From: Field Supervisor, US Fish and Wildlife Service, Ecological Services, Montana Field Office, Helena, MT

file PP 8323.5

Subject: T&E Species List - Pompeys Pillar National Historic Landmark

Thank you for your September 11, 1995 letter regarding the Resource Management Plan amendment and analysis for consideration of Pompeys Pillar National Historic Landmark as an Area of Critical Environmental Concern. Federally-listed threatened and endangered species which may occur in planning area include:

Listed Species	Expected Occurrence
Bald eagle (Haliaeetus leucocephalus	Year-round resident. Nesting. Winter resident. Migrant.
Peregrine falcon (Falco peregrinus)	Summer resident. Migrant.
Black-footed ferret (Mustela nigripes)	Potential resident in prairie dog (Cynomys sp.) towns.
Pallid Sturgeon (Scaphirhynchus albus)	Yellowstone River.

Your efforts to meet our joint responsibilities under the Endangered Species Act of 1973 as amended, are appreciated.

DMC

cc: Suboffice Coordinator, USFWS, Ecological Services (Billings, MT)

APPENDIX 3
PROPER FUNCTIONING CONDITION

Proper Functioning Condition - Riparian-wetland areas are functioning properly when adequate vegetation, land form, or large woody debris is present to dissipate stream energy associated with high waterflows, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid floodplain development; improve flood-water retention and ground-water recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity. The functioning condition of riparian-wetland areas is a result of interaction among geology, soil, water, and vegetation.

Functional-At Risk - Riparian-wetland areas that are in functional condition but an existing soil, water, or vegetation attribute makes them susceptible to degradation.

Nonfunctional - Riparian-wetland areas that clearly are not providing adequate vegetation, land form, or large woody debris to dissipate stream energy associated with high flows and thus are not reducing erosion, improving water quality, etc., as listed above. The absence of certain physical attributes such as a floodplain where one should be are indicators of nonfunctioning conditions.

Next, the definition of PFC must be analyzed. One way to do this is by breaking the definition down as follows:

"Riparian-wetland areas are functioning properly with adequate vegetation, land form, or large woody debris is present to:

1) dissipate stream energy associated with high waterflows, thereby reducing erosion and improving water quality;

2) filter sediment, capture bedload, and aid in floodplain development;

3) improve flood-water retention and ground-water recharge;

4) develop root masses that stabilize streambanks against cutting action;

5) develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses;

6) support greater biodiversity."

Riparian areas are functioning properly with there is adequate structure present to provide the listed benefits applicable to a particular area. The analysis must be based on the riparian area's capability and potential. If, for example, the system does not have the potential to support fish habitat, that criteria would not be used in the assessment. (BLM, 1993)

APPENDIX 4
SPECIAL STATUS SPECIES AFFECTS DETERMINATIONS SUMMARY TABLES

Bureau Designated Sensitive Species

Species	In Range (yes/no) 1	Habitat Present (yes/no) 2	Effects Determination (brief rationale) 3
BIRDS			
Bairds sparrow	Y	N	
Black-backed woodpecker	N		
Black Tern	Y	Y	No effects; no activities proposed in suitable hab.
Boreal owl	N		
Burrowing owl	Y	N	
Canvasback duck	Y	N	
Columbian sharp-tailed grouse	N		
Common loon	N		
Dickcissel	Y	N	
Ferruginous hawk	Y	N	
Flammulated owl	N		
Great gray owl	N		
Hairy woodpecker	Y	Y	Potential effects; removal of snags, disturbance
Harlequin duck	N		
LeConte's sparrow	N		
Loggerhead shrike	Y	N	
Long billed curlew	Y	N	
Northern goshawk	Y	N	
Peregrine falcon	Y	N	
Pileated woodpecker	Y	N	
Sage grouse	Y	N	
Sage sparrow	Y	N	
Swainson's hawk	Y	N	
Three-toed woodpecker	Y	N	
Trumpeter swan	N		
White-faced ibis	Y	N	
MAMMALS			
Black-tailed prairie dog	Y	N	
Fisher	N		
Meadow jumping mouse	N		
Merriam's shrew	Y	N	
North American lynx	N		
North American wolverine	N		
Northern Bog Lemming	N		
Preble's Shrew	Y	N	
Pygmy rabbit	N		
Spotted bat	Y	N	
Spotted skunk	N		

Species	In Range (yes/no) 1	Habitat Present (yes/no) 2	Effects Determination (brief rationale) 3
Swift fox	Y	N	
Townsend's big-eared bat	Y	N	
White-tailed prairie dog	N		
Woodland caribou	N		
REPTILES and AMPHIBIANS			
Snapping turtle	Y	Y	
Spiny softshell turtle	Y	Y	Avoid impacts to river/channel banks May-Sept
Canadian toad	N		
Coeur d'Alene salamander	N		
Spotted frog	?		
Tailed frog	N		
Wood frog	?		
FISH			
Arctic grayling	N		
Blue sucker	?		
Bull trout	N		
Northern redbelly X Finescale dace	?		
Paddlefish	N		
Pearl dace	?		
Shortnose gar	N		
Sicklefin chub	N		
Sturgeon chub	N		
Westslope cutthroat trout	N		
Yellowstone cutthroat trout	Y	Y	

1) If project is not within the range of the species no determination of habitat presence is needed.
2) If Habitat is not present no effects determination is needed.
3) Detailed Effects Determination is provided in the narrative of Environmental Assessment

APPENDIX 5
FLOODPLAIN MANAGEMENT
EXECUTIVE ORDER 11988

Any development by the BLM in a floodplain is guided by Executive Order (EO) 11988. This Executive Order was enacted to "avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative." The EO 11988 requires agencies to follow an eight step process to assure all alternatives and guidelines would be met. Detailed below is a summary of the eight steps and how the BLM has or will comply with the EO.

Ground surveys determined that the entire site is within the 100-year floodplain. New facilities and improvements included under Alternative A and B would be designed and constructed to comply with EO 11988, as well as the Yellowstone County Floodplain Regulations, which are more stringent than the National Flood Insurance Program and the Montana Floodway Management and Regulation Act. The BLM has had ongoing consultation with appropriate agency and county officials and specialists regarding the proposed action.

STEP 1 – Determine if a proposed action is in a base Floodplain

Survey data, photos, and a floodplain study initiated in the summer of 1999, identified the entire site was in the 100-year floodplain. Consultation was held with the Yellowstone County Floodplain Administrator, USGS (Helena) and MT DNRC regarding procedures and permits to build in a floodplain. The DNRC floodplain 2000 study established the 100 and 500 year flood levels and floodways.

The interpretive center design standards will meet the building requirements for the 100 and 500 year floodplain levels.

A Capital Asset Plan and Justification for the Department of Interior submission requesting funding (September 21, 1999) stated the site would have to meet E.O. 11988 and Yellowstone County Floodplain Regulations.

In 1998, the Montana State Director briefed the BLM Washington Office leadership team and received concurrence to proceed with the proposed action

STEP 2 - Provide for Public Review

Public scoping for this EA was initiated on November 1999 through filing of a Notice of Intent to Prepare an Environmental Assessment on construction of an interpretive center and other facilities at Pompeys Pillar National Historic Landmark. The notice was published in the Federal Register on November 26, 1999.

Two public scoping meetings to gather comments on the scope of the environmental analysis for the project were held on January 4 and January 5, 2000. Many members of the public commented and/or wrote letters regarding construction in the floodplain and impacts to adjacent lands and floodplain function. Upcoming public review, including public notices and public meetings regarding this EA and compliance with floodplain guidelines, will be completed the summer 2001.

Step 3 - Identify and evaluate practicable alternatives to locating in the base floodplain

This step requires that practicable alternatives to the floodplain action be identified and considered. Alternatives outside the floodplain are favorable, but there may be other sites which have less risk associated with them inside the same floodplain. These less risky sites should be considered as alternatives if no others outside the flooplain exist.

A topography survey confirmed the entire property, except for the Pillar land form and a narrow berm on the northern field edge, is within the100-year floodplain. Therefore, there are no other sites on the Pillar property that are out of the floodplain. Other alternatives would include an off-site location, in which there would be other unavoidable issues and impacts (refer to Chapter Two).

State and federal floodplain regulations provide guidelines on flood water encroachment levels. Encroachment can be defined as the displacement of floodwaters caused by depositing fill materials to bring a structure out of the floodplain. Construction or fill within the floodplain fringe is allowable; however, the floodwater rise cannot exceed state or federal standards. The Montana State standards allow a 6 inch rise and Federal Insurance Program standards allow a 12 inch rise before a development impacts a floodplain and flood elevations.

In April 2000, the BLM and MT DNRC engineers analyzed impacts of alternative sites in the floodplain. A determination was made that the proposed location of the proposed action had no impact, meaning there would be no rise in the floodwater elevation. Conversely, the proposed Highway 312 location actually caused a 3/8 inch rise in flood water encroachment levels.

Step 4 - Identify the impacts of the proposed action

This EA analyzes the impacts of the proposed action. Impact analysis addressed riparian/wetlands; floodplain and water quality; wildlife and fisheries; Threatened and Endangered Species; Social and Economic Impacts, as well as other critical elements. Through analysis, management common, and design guidelines, there would be no negative impacts. The facilities would be confined and concentrated to avoid impacts to wildlife species (refer to Chapter Two, Management Common of this analysis). Through conformance to the floodplain guidelines, no long-term impacts would occur. There may be some short-term cumulative effects with simultaneous construction in the area with the proposed action, Highway 312 construction and the proposed grain elevator facility on the south side of Highway 312; however, there would be no long-term impacts associated with the proposed action and there would be no irretrievable, irreversible impacts.

Step 5 - Minimize threats to life, property and to natural and beneficial floodplain values, and restore and preserve natural and beneficial floodplain values

Any mitigation measures have actually been adopted into the design and guidelines for the proposed action. All development activities in the floodplain will comply and be permitted by Yellowstone County Floodplain Regulations that are in compliance with and are more stringent than the National Flood Insurance Program and the Montana Floodway Management and Regulation Act. All practicable means to floodproof structures will be taken in compliance with the Yellowstone County Floodplain Regulations. Meeting their requirements of the floor level being 2 feet above the 100-year flood level also allows the proposed action to withstand a 500 year flood, which is 0.9 feet higher. Higher wall footings are being considered on the sides to reduce the fill amounts in the floodplain. Fill slopes will be utilized on both building ends to provide Universal Design access for the public.

Enhancement of wetlands may occur with the potential development of new wetlands on the site. Through the practices of no net loss, Best Management Practices and/or avoidance measures, there would be no net loss of wetlands. Refer to the Riparian/Wetlands analysis in Chapters Two and Three for more detailed discussion.

Step 6 - Reevaluate alternatives

This analysis refines the 1996 decision to locate the interpretive center in the floodplain. New information contained in this analysis has determined that no site at Pompeys Pillar is out of the floodplain. Refer to the analysis and design requirements on how the proposed action will conform with floodplain management regulations and laws.

Step 7 - Issue findings and a public explanation

This analysis will fulfill this requirement and states:

1. All development activities in the floodplain will comply and be permitted by Yellowstone County Floodplain Regulations that are in compliance with and are more stringent than the National Flood Insurance Program and the Montana Floodway Management and Regulation Act.

2. Provides the public location maps (Map 4 and 5) of the proposed action.

Furthermore, public notification in the form of a Federal Register Notice of Availability and public meetings will be held.

Step 8 Implement the action

No deviation from the EA decision would be made unless the above actions are repeated.

APPENDIX 6
REFERENCES

Avain Power Lines Interaction Committee (APLIC). 1996. *Suggested Practices for Raptor Protection on Power Lines: The State of Art in 1996.* Washington, D.C: Edian Electric Institute/Raptor Research Foundation.

BRW Inc. 2000. Internal Review Copy, Biological Resources Report, Interpretive Center Environmental Assessment Pompeys Pillar National Historic Landmark, October 2000

____, 2000a. Internal Review Copy, Draft Supplemental Environmental Assessment Interpretive Center Pompeys Pillar National Historic Landmark. November 2000,

____, 2001. Pompeys Pillar Visitor Projections. February 2001.

Flath, Dennis. 1996. Non-game Coordinator, Montana Fish, Wildlife, and Parks, Billings, MT. Personal communication.

Gorges, Mark. 1995. Where have the songbirds gone?. *The Drumming Post.* Wyoming Game and Fish Department, Volume 8, Number 2.

Hansen, Paul L., Robert D. Pfister, Keith Boggs, Bradley J. Cook, John Joy, Dan K. Hinckley. 1995. *Classification and Management of Montana's Riparian and Wetland Sites.* Miscellaneous Publication No. 54. Missoula, MT: Montana Forest and Conservation Experiment Station, School of Forestry, University of Montana .

Hunsaker, Dave. 1995. National Historic Oregon Trail Interpretive Center, Baker City, OR. Personal communication.

Institute for Tourism and Recreation Research. 2001. *Montana Lewis and Clark Site Visitors Summer 2000.* RR -2001-1 University of Montana, Missoula, MT (2001 URL: http://www.forestry.umt.edu/itrr/).

Institute for Tourism and Recreation Research 1991. *Characteristics of Recreationists Engaging in Wildlife Related Recreation.* Technical Completion Report 91-8. Missoula, MT: Institute for Tourism and Recreation Research, University of Montana.

Kodeski, Dick. Nov, 1995. Land Use Specialist, Bureau of Land Management, Billings Field Office, Billings, MT. Personal communication.

Moisey, Neil, and Stephen F. McCool. 1991a. *Estimated Use and Economic Impact of the Proposed Visitor Center of the Upper Missouri.* Technical Completion Report 91-4. Missoula, MT: Institute for Tourism and Recreation Research, University of Montana.

Montana Chapter of the Wildlife Society. 1999. *Recreation in Wildlife Habitat.*

Montana Department of Agriculture, Montana Agricultural Statistics Service. 1995. *Montana Agricultural Statistics 1995.* Helena, MT: Montana Agricultural Statistics Service.

Montana Department of Commerce. 2001. *Census and Economic Information Center.* (2001 URL: http:// www. /ceic.commerce.state.mt.us/).

Montana Department of Commerce. 1995. Helena, MT. Personal communication.

Oblender, Will. 1996. Pompeys Pillar, MT. Personal communication.

Reed, P.B., Jr. 1996. *National List of Plant Species that Occur in Wetlands: Northwest (Region 9), and North Plains (Region 4).* U.S. Fish and Wildlife Service.

Riparian Area Management, Process for Assessing Proper Functioning Condition, September, 1993, Technical Reference 1737-9, BLM Service Center, 60 Pg.

Staszak, Cindy. 2001. Park Ranger/Interpretive Specialist, Bureau of Land Management, Montana State Office, Billings, MT. Personal communication.

U.S. Department of Agriculture, Soil Conservation Service. 1990. *Prime and Important Farmland Map.* Washington, D.C.

U.S. Department of Commerce, Bureau of Census. 1994. *Census of Agriculture*, 1992. Washington, D.C.: Government Printing Office.

U.S. Department of Commerce, Bureau of Economic Analysis. 1991. *Regional Input-Output Modeling Systems (RIMS II).* Washington, D.C.: Bureau of Economic Analysis.

U.S. Department of the Interior, Bureau of Land Management. 1996. *Pompeys Pillar EA/Amendment for the Billings Resource Management Plan and Decision Record.* Billings, MT: BLM Billings Resource Area.

____, 1999. *Pompeys Pillar ISTEA Trail Environmental Assessment.* Billings, MT: BLM Billings Resource Area.

____, 1998. *Pompeys Pillar National Historic Landmark Interpretive Prospectus.* Billings, MT: BLM Montana State Office.

____, 1984. *Record of Decision for the Billings Resource Management Plan Final Environmental Impact Statement.* Salt Lake City, UT: Government Printing Office.

____, 1983. *Resource Management Plan - Billings Resource Area: Final Environmental Impact Statement.* Salt Lake City, UT: Government Printing Office.

____, 1986. Visual Resource Contrast Rating, BLM Manual Handbook H-8431-1, Washington, D.C.

____, 1986a. Visual Resource Inventory, BLM Manual Handbook 8410-1, Washington, D.C.

____, 1984a. Visual Resource Management, BLM Manual Handbook 8400, Washington, D.C.

U.S. Department of the Interior, Bureau of Land Management and Pompeys Pillar Association. *1994. Pompeys Pillar User Survey Results.* Billings, MT: Montana State Office.

U.S. Department of the Interior, Bureau of Land Management and U.S. Department of Agriculture, Forest Service. 1999. *Off-Highway Vehicle Draft Environmental Impact Statement and Plan Amendment for Montana, North Dakota and Portions of South Dakota.* Salt Lake City, UT: Government Printing Office.

U.S. Department of the Interior, Fish and Wildlife Service and U.S. Department of Commerce, Bureau of the Census. 1993. *1991 National Survey of Fishing, Hunting and Wildlife- Associated Recreation: Montana.* Washington, D.C.: U.S. Government Printing Office.

Wolf, Carl E. 2000. List of sightings of bird species. Pompeys Pillar.

APPENDIX 7
LIST OF ACRONYMS

ACEC	Area of Critical Environmental Concern
ADAAG	Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities
ARPA	Archeological Resources Protection Act of 1979
BLM	Bureau of Land Management
BMPs	Best Management Practices
BRMP	Billings Resource Management Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
C.T.	Community Types
CWA	Clean Water Act
DEQ	Montana Department of Environmental Quality
DNRC	Montana Department of Natural Resource Conservation
EA	Environmental Assessment
EO	Executive Order
FLPMA	Federal Land Policy and Management Act
L&C	Lewis and Clark
MBTA	Migratory Bird Treaty Act of 1918
NAGPRA	Native American Grave and Repatriation Act of 1990
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
PEM/SSA	Palustrine, emergent/scrub-shrub, temporarily flooded wetland
PEM/SSC	Palustrine emergent/scrub-shrub seasonally flooded wetland
PFC	Proper Functioning Condition
PPHA	Pompeys Pillar Historical Association
PSD	Prevention of Significant Deterioration
PSS/FO	Palustrine, scrub-shrub/forested wetland
PUP	Pesticide Use Proposal
RCRA	Resource Conservation and Recovery Act of 1976
RMP	Resource Management Plan
SHPO	Montana State Historic Preservation Officer
UFAS	Uniform Federal Accessibility Standards
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VRM	Visual Resource Management
WSRA	Wild and Scenic Rivers Act of 1968

APPENDIX 8
LIST OF PREPARERS

Dick Kodeski, Pompeys Pillar Manager
Kim Prill, Team Lead and L&C Bicentennial Coordinator
Joan Trent, Technical Coordination and Sociologist
Jay Parks, Wildlife Biologist
David Jaynes, Assistant Field Manager, Billings
Keith Mosbaugh, Outdoor Recreation Planner
Michael Kyte, Archeologist
Darrel Pistorius, Project Manager
Greg Bergum, Supervisory Civil Engineer
Greg Albright, Public Affairs Specialist
George Peternel, Outdoor Recreation Planner
Cindy Staszak, Park Ranger
John Thompson, Planning and Environmental Specialist
Wendy Favinger, Economist
Bill Volk, Soil Scientist
Bill Hensley, Forester
Peter Bierbach, Hazardous Materials Coordinator
Tim Bozorth, Hydrologist
Roxanne Falise, Wildlife Biologist
Marc Whisler, Wildlife Biologist
Bob Allen, Visual Information Specialist
Kathy Ives, Printing Specialist
Merry Prestridge, Staff Assistant

☆ U.S. GOVERNMENT PRINTING OFFICE: 2001 — 689-088 / 07011 Region No. 10

YELLOWSTONE RIVER

EXISTING BRIDGE

EXISTING VISITOR CENTER

NATIONAL LANDMARK BOUNDARY

NATIONAL MONUMENT BOUNDARY

EXISTING MAINTENANCE BUILDING

PRIVATE PROPERTY

DRAIN DITCH

POMPEYS PILLAR BOUNDARY

PRIVATE RESIDENCE

N

EXISTING ENTRANCE ROAD

EXISTING COUNTY ROAD

RAILROAD

312

94

PROPOSED GRAIN ELEVATOR

TO BILLINGS

0 500 1000 1500

Scale in Feet

LEGEND

WETLANDS/ RIPARIAN AREAS

Map 2

SPECIAL DESIGNATIONS

(Source: Activity Plan)

INTERPRETIVE CENTER/ ENVIRONMENTAL ASSESSMENT

POMPEYS PILLAR NATIONAL HISTORIC LANDMARK

Bureau of Land Management

May 2001

YELLOWSTONE RIVER

EXISTING BRIDGE

EXISTING VISITOR CENTER

POMPEYS PILLAR

Historic Zone -NATURAL-

Historic Zone -DEVELOPED-

GENERAL MANAGEMENT ZONE

EXISTING MAINTENANCE BUILDING

PRIVATE PROPERTY

DRAIN DITCH

POMPEYS PILLAR BOUNDARY

PRIVATE RESIDENCE

GENERAL MANAGEMENT ZONE

N

EXISTING ENTRANCE ROAD

EXISTING COUNTY ROAD

RAILROAD

312

94

PROPOSED GRAIN ELEVATOR

TO BILLINGS

0 500 1000 1500

Scale in Feet

LEGEND

WETLANDS/ RIPARIAN AREAS

Map 3

LAND ALLOCATION ZONING (Source: Activity Plan)

INTERPRETIVE CENTER/ ENVIRONMENTAL ASSESSMENT

POMPEYS PILLAR NATIONAL HISTORIC LANDMARK

Bureau of Land Management

May 2001

YELLOWSTONE RIVER

EXISTING BRIDGE

EXISTING DAY USE AREA

EXISTING VISITOR CENTER

DAY USE AREA

POMPEYS PILLAR

EXISTING MAINTENANCE FACILITY

INTERP. CENTER

PARKING/ MAINTENANCE

POMPEYS PILLAR BOUNDARY

PRIVATE PROPERTY

DRAIN DITCH

PROPOSED ENTRANCE ROAD

N

PRIVATE RESIDENCE

WETLAND OPTIONS/ FILL REMOVAL AREA

EXISTING ENTRANCE ROAD

SEWAGE TREATMENT

EXISTING COUNTY ROAD

RAILROAD

312

PROPOSED GRAIN ELEVATOR

94

TO BILLINGS

0 500 1000 1500

Scale in Feet

Map 4

ALTERNATIVE A

INTERPRETIVE CENTER/
ENVIRONMENTAL ASSESSMENT

POMPEYS PILLAR NATIONAL HISTORIC LANDMARK

Bureau of Land Management

May 2001

YELLOWSTONE RIVER

EXISTING BRIDGE

EXISTING DAY USE AREA

DAY USE AREA

EXISTING VISITOR CENTER (TO BE REMOVED)

POMPEYS PILLAR

INTERP. CENTER

PARKING/ MAINTENANCE

EXISTING MAINTENANCE FACILITY

PROPOSED ENTRANCE ROAD

PRIVATE PROPERTY

DRAIN DITCH

POMPEYS PILLAR BOUNDARY

PRIVATE RESIDENCE

WETLAND OPTIONS/ FILL REMOVAL AREA

SEWAGE TREATMENT

EXISTING ENTRANCE ROAD

EXISTING COUNTY ROAD

RAILROAD

312

PROPOSED GRAIN ELEVATOR

94

TO BILLINGS

N

0 500 1000 1500

Scale in Feet

Map 5

ALTERNATIVE B

PREFERRED ALTERNATIVE

INTERPRETIVE CENTER/ ENVIRONMENTAL ASSESSMENT

POMPEYS PILLAR NATIONAL HISTORIC LANDMARK

Bureau of Land Management

May 2001

YELLOWSTONE RIVER

EXISTING BRIDGE

EXISTING VISITOR CENTER

EXISTING MAINTENANCE BUILDING

PRIVATE PROPERTY

POMPEYS PILLAR BOUNDARY

DRAIN DITCH (CHANNELIZED STREAM)

PRIVATE RESIDENCE

DRAIN DITCH

EXISTING ENTRANCE ROAD

EXISTING COUNTY ROAD

RAILROAD

312

94

PROPOSED GRAIN ELEVATOR

TO BILLINGS

N

0 500 1000 1500

Scale in Feet

LEGEND

RIPARIAN AREAS

WETLAND IDENTIFICATION NUMBER

WETLAND AREA

Map 6

WETLANDS / RIPARIAN AREAS

(Source: Activity Plan)

INTERPRETIVE CENTER/
ENVIRONMENTAL ASSESSMENT

POMPEYS PILLAR NATIONAL HISTORIC LANDMARK

Bureau of Land Management

May 2001


W. Clark
July 25. 1806
J.K. RALSTON